

Austria	3,204	Iran	10,219	Poland	1,000
Belgium	1,000	Italy	1,000	Portugal	1,000
Canada	1,000	Japan	1,000	Spain	1,000
France	1,000	South Korea	1,000	Sweden	1,000
Germany	1,000	Taiwan	1,000	Switzerland	1,000
Greece	1,000	Thailand	1,000	UK	1,000
India	1,000	USA	1,000	West Germany	1,000
Indonesia	1,000				

EUROPE'S BUSINESS NEWSPAPER

FINANCIAL TIMES

AUSTRIAN POLL

Failing to address crisis of identity

Page 3

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Friday October 5 1990

World News

Business Summary

Soviet tanks 'moved east to evade treaty rules'

Seven thousand Soviet tanks are thought to have been shipped east of the Ural mountains to prevent them having to be destroyed under the conventional armed forces treaty due for signature next month.

The International Institute for Strategic Studies also cited reports that as many as 10,000 tanks had been collected near Kiev to be exported for scrap.

Philippines revolt
A former senior officer in President Corason Aquino's palace guard seized control of two cities after a bloodless mutiny on the southern Philippines island of Mindanao. Page 26

Mazowiecki's bid
Polish prime minister Tadeusz Mazowiecki said he would run for president, a post that Solidarity leader Lech Walesa has already announced he will contest.

Help for Rwanda
France and Belgium are sending military help to Rwanda, the central African former Belgian colony which is fighting a rebel invasion. Page 8

Singh delays vote
Indian prime minister V. P. Singh won approval for postponing elections in Punjab's state assembly, dissolved in 1987. Page 8

More jobless Poles
Poland's unemployment rate reached 6.9 per cent in September after a monthly increase of 106,000 to 926,382.

Seoul-Peking link
South Korea, flushed with success after setting up diplomatic ties with Moscow, is to try normalising relations with China, its foreign minister said.

Famine threat
Save the Children, the international charity, warned that 10m people in Ethiopia and Sudan risk starvation unless action is taken now. More than 1m died in Ethiopia's 1984-85 famine. Page 8

German unity clash
A clash over the cost of unity marked the first session of a democratic all-German parliament since before the Second World War. Page 26; Berliners pick up the pieces, Page 2

Paris flats collapse
A block of flats collapsed in a Paris suburb after an explosion, killing at least four people and injuring eight. A gas leak was probably to blame.

Malaysian snap poll
Malaysia's prime minister dissolved parliament to call a snap general election one year ahead of schedule. Page 8

Indian troops killed
Pakistan said that Indian forces suffered heavy losses, including the deaths of two senior officers, in a recent attack on a Pakistani post in Kashmir.

Financiers jailed
Two financiers who worked for the Bank of Credit and Commerce International in London were jailed for conspiring with the "personal banker" of former Panamanian leader General Noriega. Page 16

Brady warns of interest rate rise if budget fails

US interest rates will rise if Congress rejects the budget agreement, Mr Nicholas Brady, the US treasury secretary, has warned in the face of growing cross-party opposition to the tax and spending measures.

Following approval of the package by Mr Alan Greenspan, Federal Reserve chairman, Mr Brady said it was up to Congress. "If you vote for, interest rates will go down. If you vote against, interest rates will go up." Page 26

PEUGEOT Talbot, UK division, is to shed 350 jobs, mainly at its Ryton assembly plant near Coventry. Page 10

FOREX: Speculation about lower US interest rates led to selling of the dollar, pushing it to a record low against the D-Mark and to its lowest against the Japanese yen for over 17 months. Currencies, Page 46; US Budget, Page 6

ROTEMANS International, tobacco and luxury goods group, is bidding for the 61.3 per cent of P.J. Carroll, the Irish cigarette company, it does not already own. Page 27

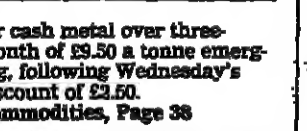
NEWS CORPORATION shares continued to fall in Australia, closing at A\$6.58, less than half their year's high. Page 31

GENERAL MOTORS president Robert Eaton said it was "an illusion" to assume long-term protectionist measures against Japanese car sales in Europe would succeed. Page 4

CREDIT LYONNAIS, French state-owned bank, reported a 33 per cent increase in first-half net profits to FF1.82bn (\$340bn). Page 27

LONDON METALS: Cash lead rose sharply, with a premium

Lead
Cash metal (£ per tonne)



for cash metal over three months of £9.50 a tonne emerging, following Wednesday's discount of £2.50. Commodities, Page 38

AUSTRALIA: Finance minister Paul Keating announced a parliamentary inquiry into the nation's banking system following a Treasury study which showed prime rates had not fallen in line with official money market rates. Page 8

ALLIANZ, big German insurance group, is raising DM1.35bn (\$871m) through a rights issue. Page 27

KLM: Shares in the Dutch airline fell by 11 per cent on a warning of possible losses in 1990-91. Page 28

KUWAIT Investment Office in London applied for all 50m shares in the flotation of Singapore Petroleum Company. Page 31

Gulf diplomacy efforts stepped up

By Victor Mallet in Dhahran and Robert Graham in London

DIPLOMATIC efforts intensified yesterday to try to persuade Iraq to end its two-month-old occupation of Kuwait.

In Moscow, President Mikhail Gorbachev stated that a military conflict could be avoided. Asked by journalists if he believed war would break out, he replied: "I think not."

His comments came as his special envoy Mr Yegor G. Primakov, a member of the presidential council, arrived in Baghdad for talks with the Iraqi leadership.

On his arrival, Mr Primakov said he thought it was necessary to find a political solution "to prevent slipping into a military course, and this is the

true position of the Soviet Union."

His is the first visit by a top-level negotiator from one of the five permanent United Nations Security Council members since the Iraqi invasion of Kuwait on August 2.

The Soviet Union is also concerned to secure the exit of its remaining citizens in Iraq.

Mr Yasser Arafat, leader of the Palestinian Liberation Organisation who is searching for an Arab solution to the Gulf crisis, was also in Baghdad where he had a further round of talks yesterday with President Saddam Hussein.

Mr Arafat, who met the Soviet presidential envoy in Amman on Wednesday, voiced

optimism about prospects for a peaceful solution. He referred to President George Bush's speech at the UN earlier this week, which hinted that an Iraqi withdrawal could pave the way for a broader Middle East peace, and the plan put forward by President Francois Mitterrand of France.

Mr Mitterrand yesterday met King Fahd of Saudi Arabia in Jeddah on the second day of a three-day tour of the Gulf. Reports of the meeting suggested that the Saudi monarch remained convinced that Mr Saddam was not serious about negotiation.

An official for President Mitterrand said King Fahd agreed that all political means should

be exhausted in the search for peace. However, he added: "Unfortunately Saddam Hussein doesn't seem to be listening."

In Jordan, Mr Toebiki Kaifu, Japan's prime minister, met a senior Iraqi envoy that Iraq's invasion of Kuwait and its seizure of foreign hostages were unacceptable.

Mr Kaifu, making the first trip to the Middle East by a Japanese premier in 12 years, is attempting to improve Tokyo's regional ties, particularly with the conservative Gulf states from which it imports much of its oil. During the two-hour meeting, Mr Kaifu reiterated Iraq's claim to Kuwait.



Mikhail Gorbachev: optimistic on prospects for peace

Fiat and CGE agree strategic swap of shares and businesses

By Haig Simonian in Turin and William Dawkins in Paris

FIAT of Italy and Générale d'Electricité (GCE) of France have agreed to swap shares and exchange a number of businesses in one of Europe's biggest cross-border corporate deals to date.

The deal, which covers industries ranging from telecommunications to railway equipment, is aimed at strengthening the competitiveness of European industry on world markets, according to Fiat.

It will give Fiat 6 per cent of the shares in GCE. In return, the French group, which is best known for its Alcatel telecommunications activities and its Alsthom railway engineering subsidiary, will take 3 per cent of Fiat.

Fiat is also selling its Telettra telecommunications division to GCE and 50.1 per cent of its Fiat Ferroviaria railway equipment business - for L2,500bn (\$2.13bn) and L1,500bn respectively. In return, the Italians will buy 50.1 of Compagnie Européenne d'Automoteurs (CEA), one of Europe's top car battery makers, from GCE for L1,500bn.

Fiat will also take 25 per cent of the new Italian telecommunications venture being forged from Telettra and Alcatel France. GCE's Italian telecoms business, as well as about L500bn in cash.

Mr Cesare Romiti, Fiat's managing director, said the link with GCE "involved not just telecommunications, but much more important, the two groups intended to 'construct and maintain strategic links' for the foreseeable future."



Romiti: seeks joint activities

The reciprocal equity stakes that will buttress their commitment to a long-term strategic alliance will be complemented by boardroom appointments. Fiat and GCE will exchange one board member each, while a further, as yet unnamed but mutually acceptable, representative will sit on the boards of both companies.

The two groups will also set up a new Europe holding company, on which three top executives from each side will be represented. The new unit's task will be to examine and co-ordinate future co-operation.

The deal further furthers Fiat's policy of focusing more closely on core automotive business. However, it will also allow it to create economies of scale and a more international dimension for some of its other activities.



Suard: CGE link 'strategic'

Mr Pierre Suard, CGE's chairman, expressed that the cross shareholdings between the two groups were just as important as the specific exchanges of businesses in terms of cementing an alliance

between groups with similar European strategies. "Each of us remains responsible for our traditional activities, but together we can tackle new activities, like artificial intelligence and new materials, where we have common interests but do not compete."

They did not plan to increase their cross-shareholdings.

The Telettra transaction marks a heavy blow for IRI, the Italian state holding company, which had also been bidding for the company.

Alcatel officials estimate that the addition of Telettra will give the new telecommunications group 19 per cent of the FF44bn (\$12.3bn) world cable transmission market, second position after AT&T of the US.

The letter, sent in the form of a telegram and delivered to the foreign ministry in Ankara by Sir Timothy Dainton, the UK ambassador to Turkey, was signed by Mr Douglas Hurd, the foreign secretary.

It is unusual for governments to discuss the affairs of a publicly quoted company through diplomatic channels, especially at such a senior level.

The letter was a reply to one received a day earlier by Mr Hurd from the Turkish economic minister which said Ankara was examining aid to Polly Peck and requesting that London "hold the situation steady" with the company's UK bank creditors.

Turkish officials said a copy of the British note was sent to Turkey's President Turgut Ozal in New York just before he was due to meet Mrs Margaret Thatcher, the British prime minister. According to a

Polly Peck faces banks, will seek payments halt

By Alan Friedman, David Barchard and Clay Harris in London

A STRONGLY worded British government letter sent to Turkey last Saturday warned that Polly Peck International, the UK-based fruit trading and electronics group, faced repossession unless the Turkish government produced £100m (\$188m) of rescue money within 48 hours.

News of the letter emerged ahead of today's critical meeting in London of 50 to 70 of Polly Peck's bankers. The company will be asking the banks to roll over £117m (\$220m) in short-term debt and to agree to a 90-day standstill on debt payments.

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Turkish officials said a copy of the British note was sent to Turkey's President Turgut Ozal in New York just before he was due to meet Mrs Margaret Thatcher, the British prime minister. According to a

senior Turkish official the Turkish leader was angered both by the contents and tone of the letter because he construed as an ultimatum.

Mr Ozal apparently decided to delay the rescue package because he did not want Turkish institutions to be exposed to greater loan exposure than Polly Peck's original London-based bank creditors.

The letter said that Polly Peck's bank creditors were emphasising that they would call in the administrators on Monday October 1 unless two key conditions were met:

● An immediate injection of £100m of funds by the Turkish authorities which would be usable in London.

● Management changes at Polly Peck.

The letter, of which the contents were confirmed last night by both the Bank of England and the Foreign Office, went on to say that even if the conditions were fulfilled, it was still possible the company would fail.

A senior Turkish government official has told the Financial Times that a rescue package was agreed in New York last Saturday after meetings between Mr Asil Nadir, Polly Peck's chairman, Mr Ozal, Mr Günes Taner, the Turkish economics minister, and Turkish bankers.

The Bank of England yesterday sought to distance itself from the matter, saying it had merely supplied information to Polly Peck Affairs, Page 26

EC hint of compromise on farm policy raises trade talks hopes

By Tim Dickson and Kieran Cooke in Brussels and Nancy Dunne in Washington

A HINT of compromise in the European Community's stance on farm policy reform yesterday raised hopes of a successful outcome to the Uruguay Round of trade talks.

Comments by EC officials, aiming to provide a framework for widespread liberalisation of world trade, by the December deadline, is heavily dependent on a resolution of the vexed EC-US dispute over agricultural subsidies.

In its first fully formulated proposal on farm supports, the European Commission indicated that it may be ready to show more flexibility on the key issue of export subsidies paid under the EC's Common Agricultural Policy.

The US in particular is strongly opposed to what it claims is the EC's unfair system of subsidising food supplies on to world markets, thereby distorting international trade.

Washington has repeatedly called for the elimination of the support and subsidy payments which amount to more than Ecu10bn (\$13.3bn)

from the EC's budget last year. A spokeswoman for Mr Clayton Yeutter, US Agriculture Secretary, welcomed the EC proposal as "a modest advance."

However, she said it left "a large gap to be bridged in a very short amount of time."

She said that a US paper, to be submitted on October 15, would be "more forthcoming, more committed to reform and more market-oriented."

But, at least the EC has now put forward a document with specific details, and that's important since we have only a month and a half to negotiate.

The EC's complex set of proposals gave no commitment to removal of export subsidies but it indicated that there may be scope for modification of the system during the final stages of the General Agreement on Tariffs and Trade (GATT) negotiating process.

The EC action is seen as something of a victory for those in the Commission - led by Mr Frans Andriessen, External Relations Commissioner - who have been pressing

for a more conciliatory approach on agriculture.

The basic proposal for a 30 per cent reduction in overall farm support over the period 1990-94 put forward by Mr Ray MacSharry, EC Farm Commissioner, was unanimously endorsed by his Commission colleagues.

The US wants far larger cuts, of up to 70 per cent, in support over the period 1990-94.

Few American farm lobbyists were willing to comment on the proposal until they had time to study the details.

Mr Dale Hathaway, a widely respected former agriculture official and now a Washington consultant, said the basic issues of disagreement remained: the EC insistence on imposing tariffs on new products through "rebalancing" and the EC's unwillingness to impose controls on the number of products to be covered by export subsidies.

"Rebalancing would be politically difficult for the US to accept," he said. Talks fall behind schedule, Page 4; Commodities, Page 38

Weekend FT

Tomorrow: How Malcolm Forbes cashed in on his hit-list of the super-rich

Collectors' guide to New York art fairs

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President Aquino under siege from all sides



The Philippines' President Aquino (left) may have survived another bid this week to topple her fragile regime, but the serious issues which prompted it and five previous coup attempts still remain. Page 26

MARKETS

STERLING New York: \$1.9145 (1.9015) London: \$1.9115 (1.901) DM2.5300 (2.5225) FF2.8250 (2.8225) SF2.4400 (2.4425) ¥255.75 (255.5) £ Index: 83.7 (83.5)	GOLD New York: Comex Dec \$398.9 London: \$397.0 (390.5) SI 554A OIL (Argus) Brent 15-day Nov \$36.40 (35.1)	DOLLAR New York: DM1.5328 (1.54235) FF1.95 (1.97) SF1.2795 (1.2827) ¥133.7 (137.08) London: DM1.5335 (1.543) FF1.9400 (1.9725) SF1.2785 (1.2845) ¥133.85 (138.2) £ Index: 81.7 (82.5) Tokyo close: ¥135.90 US benchmark rates Fed Funds 8 1/4 % 3-mo Treasury Bill: yield: 7.36 % Long Bond: 90 1/2 % yield: 8.82 %	STOCK INDICES FT-SE 100: 2,070.4 (-10.6) FT 100: 1,601.5 (-17.7) F.A. All-Share: 985.94 (-0.7 %) New York: DJ Ind. Av. 2,516.63 (+27.47) S&P 500: 649.00 (+1.79) Tokyo: Nikkei 22,275.10 (-57.120) LONDON MONEY 3-mo Interbank: close 1432-14 1/2 % (1432-14 1/2 %) Libor long 6m future: Dec 83 1/2 (83-2)
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EUROPEAN NEWS

More than 4,000 skilled jobs will go following agency's decision to shut Pentacon camera company

Treuhand makes clean sweep of its regional directors

By Leslie Collett in Berlin

THE TREUHAND, the trust agency which oversees more than 8,000 former East German state companies, yesterday replaced all 15 of its regional directors in a sweeping reshuffle.

The announcement coincided with confirmation that the Treuhand is closing down Pentacon, Germany's largest camera company in Dresden.

Specially-recruited west German company executives have been appointed to succeed the previous Communist-appointed regional directors, several of whom were widely criticised for selling off assets to cronies. Ms Birgit Breuel, a member of the Treuhand board, referred to the newly-appointed executives

as "pioneers" of German industry.

Ms Breuel, a former Economics Minister in Lower Saxony, said the new appointees to head the 15 regional branches of the Treuhand would be given wide-ranging decision-making powers and that only the largest and most important cases would be decided in Berlin.

As much decentralisation as possible was Treuhand's aim, she said. The branches were in charge of nearly 5,700 companies while 2,300 companies were overseen by the agency in Berlin.

The terminal condition of many former state enterprises was highlighted by the shutting down of the Pentacon

camera company, formerly considered a "pearl" of East German industry.

The Treuhand's closure of what is the largest company yet to be wound up in eastern Germany entails the loss of more than 4,000 mainly skilled jobs.

The announcement by the Treuhand came only a day after German unification, but Mr Wolf Schöde, the agency's spokesman, denied suggestions that it had been purposely delayed until after the festivities were over.

Mr Schöde said the Treuhand had studied intensively over the past three months Pentacon's chances of survival on the world market. It concluded that even with heavy investments it could not

be made competitive in the face of "overwhelming" Far Eastern competition. The company's widely-sold Praktica camera was designed to earn hard currency but did not come near to covering costs, he said.

Pentacon's closure is likely to heighten the widespread mood of despair in eastern Germany where unemployment is rising rapidly.

But it will almost certainly boost the Treuhand's reputation among western companies who have criticised it for a lack of decisive action. Mr Schöde emphasised that Pentacon was not bankrupt and that a buyer for the company would be sought over the next six months. He noted,

however, that one of eastern Germany's main semiconductor manufacturers in Frankfurt on the Oder, which was reported to have been in dire financial straits, was not in fact on the brink of bankruptcy.

Unemployment is falling steadily in western Germany and rising sharply in eastern Germany, writes David Goodhart in Bonn.

In the west the number fell back to 1.72m or 6.6 per cent of the workforce in September. But in the east it jumped by 23 per cent to 444,000, or 5 per cent of the workforce. This excludes the 1.72m who are now on short-time work, of whom most are working less than half of the normal working week.

The western German economy has created an impressive 700,000 new jobs over the past 12 months, more than enough to absorb all the Germans from eastern Europe who have been flooding into the country.

The Federation of German Trade Unions complained yesterday to Mr Norbert Blum, the Labour Minister, that employers were often skirting round the law to employ cheap workers from eastern Germany.

Meanwhile, the West German inflation rate touched 3 per cent in September for the first time this year, largely thanks to the rise in the price of oil. The rate for the year as a whole will remain just under 3 per cent.

Mitsubishi considers venture with Volvo

By Kevin Done, Motor Industry Correspondent, in Paris

MITSUBISHI MOTORS, the Japanese car-maker, is considering a joint venture with Volvo of Sweden to produce cars in Europe, Mr Masanao Ueda, the company's executive vice-president, said yesterday.

It was one of a small number of "very serious case studies" by Mitsubishi, which has been looking for a way into car production in Europe for the past three years. He hoped for a decision by the end of the year.

His remarks, made during the Paris motor show, came at a sensitive time, with the European Community in considerable disarray as it tries to formulate a policy for restraining Japanese car sales in Europe after the creation of the single European market in 1992. Five European countries currently

limit Japanese car imports.

Earlier this week Mr Jacques Calvet, Peugeot's chairman and the most outspoken advocate of rigorous controls on Japanese imports, called for a halt to all negotiations with Tokyo on easing out bilateral controls on imports. He also demanded a ban on any more Japanese car plants in Europe.

A Mitsubishi/Volvo assembly plant would have an eventual capacity of 200,000 cars a year but initial output would be much lower as such a volume "may be too big for our distribution," said Mr Ueda.

Mitsubishi's feasibility study is also sensitive for Renault, the French state-owned car-maker, which this year embarked on a far-reaching alliance with Volvo.

FROM ENMITY TO GOOD NEIGHBOURLINESS
The view of two chancellors

Chancellor Otto von Bismarck, in Reichstag, February 6 1888

When I say that we must always be prepared for all eventualities, I am voicing the expectation that we must make greater efforts than all other states devote to the same purpose. This is because of our geographical position.

We lie in the middle of Europe. We have at least three fronts for attack. France has only her eastern border, Russia only her western border across which she can be attacked. As a result of the whole development of world history, of our geography, and of the lower cohesiveness up to now experienced within the German nation compared with others, we are more exposed to the danger of coalitions than any other people.

God has placed us in a situation where we are prevented by our neighbours from in some way descending into sloth or dullness. He has placed to the side of us the most war-like and unquiet of nations, the French, and He has allowed bellicosity to rise up in Russia to an extent not seen in previous centuries. So we feel the spur from both sides, and are forced to carry out efforts which we perhaps otherwise would not make.

The stakes in the European pond prevent us ever from becoming a carp, for they project their spikes in both our flanks; they force us into efforts to which we would perhaps voluntarily not be disposed; and they force us also to hold together as Germans; something which runs counter to our inner nature, for, otherwise, we like to go our own ways.

Chancellor Helmut Kohl, in Reichstag, October 4 1990

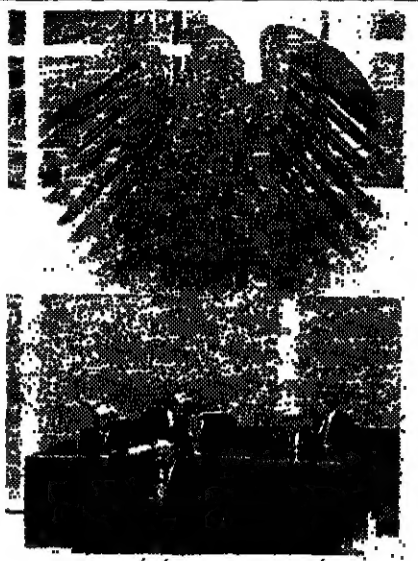
If we want to face up to the whole of German history, we must not leave out the darkest chapters. We must never forget, push aside or belittle what crimes were carried out by the Germans this century, and what pain has been inflicted on individuals and peoples. Only if we bear the burden together do we show ourselves worthy of liberty.

We were always aware that the German path to unity has raised questions among many people in Europe and elsewhere, and has led to disquiet and even fears. We understand and respect these fears. But we must also bear in mind the federal republic's experience during more than 40 years of stable democracy in a state governed by law. The coming years will demonstrate that the united Germany is a benefit for the whole of Europe.

Within Germany and outside, we strive to be good neighbours. Germany will not go down a special path: there will be no "go it alone" nationalism... we want to serve the cause of world peace.

Our goal of European union should serve as a solid foundation for the growing together of the whole of Europe, and should also form its nucleus. Together with France, we are determined to create a European confederation, in which all states will co-operate on an equal basis.

German-Soviet relations will play a key role... President Gorbachev and I agree that the Germans and the Soviet people should inscribe a final line under the painful chapters of their history, and draw again on their good traditions.



Kohl speaking in Reichstag yesterday

Oslo expects greater oil dependence

NORWAY'S centre-right government yesterday proposed a budget which foresees greater reliance on cash from North Sea petroleum in 1991, while predicting that high oil prices spurred by the Gulf crisis could be temporary, Reuters reports from Oslo.

The budget would cut personal taxes, increase spending on environmental protection and freeze Norway's defence spending at 1990 levels. Taxes on alcohol and cigarettes, already among the highest in the world, would rise.

Mr Arne Skauge, the finance minister, unveiled the minority coalition's planned Nkr355bn (€31.2bn) budget. He said it aimed to solve unemployment and slow growth in the country's non-oil economy.

Norway is the biggest oil producer in west Europe after Britain.

Including revenues from oil and gas, the proposed budget would have a 1991 deficit of Nkr5.5bn, little changed from a Nkr5.3bn shortfall in 1990.

The year-old minority coalition government has just 62 of the 165 seats in parliament and needs support from parties either to the left or right to pass its budget.

Brussels sees wide scope for energy saving

By David Buchan in Brussels

THE European Commission yesterday launched a new energy-saving campaign with a claim that better energy efficiency could cut Community consumption by 12 per cent, or 100m tonnes of oil equivalent.

Mr Antonio Cardoso e Cunha, the energy commissioner, said the so-called SAVE programme, in preparation long before this summer, had been made urgent by the Gulf crisis.

It was designed to upgrade energy efficiency requirements in technical standards, to encourage the financing of energy-saving investments and to mobilise energy users. He urged EC companies to emulate the Japanese in creating energy managers in their factories.

As a first concrete step, the Commission said it would ask EC governments to harmonise and upgrade their standards on the heating efficiency of industrial boilers.

At present, boilers of widely differing, and often low, efficiency can be freely sold around the Community provided they meet a minimum safety standard.

Berliners pick up the pieces after violent anti-unity clashes

By David Marsh and Leslie Collett in Berlin

A FEW hundred yards from the down-decked decorum of the Reichstag debating chamber, east Berliners yesterday contemplated the wreckage left by violence late on Wednesday night between police and anti-unity anarchists on the Alexanderplatz.

The police said 246 people had been arrested during the

disturbances, though most were released yesterday morning. All windows in the big Centrum department store were broken, and damage was also done to banks and a large bookshop. West German Mercedes cars were set on fire, as well as at least one lowly east German Wartburg.

Many guests in the luxury

east Berlin Grand Hotel discovered yesterday morning that the tyres of their limousines had been systematically slashed during the night.

The trouble-makers, mostly from the west of the city and from western Germany, represented only a small minority of the hundreds of thousands of Germans who enjoyed them-

selves peacefully on the Alexanderplatz on Wednesday.

None the less, anti-Berlin campaigners are likely to highlight the rioting as evidence of the danger of "mob rule" if the city eventually becomes the seat of the German government. Rejecting this view, Mr Hans Eichel, the Bonn Information Minister, said yesterday

that Berlin had shown conclusively that it could live up to the demands of three days of unity festivities.

The massive police presence on Tuesday night, as German politicians were shepherded to the Reichstag through a cordon of riot helmets, was reminiscent of the scenes in German cities a year ago during

the peaceful demonstrations against the Honecker regime.

Mr Eichel pointed out, however, that heavy security was necessary in other countries. He also recalled the mass poll tax demonstrations against Mrs Margaret Thatcher, the British Prime Minister, when Chancellor Helmut Kohl met her in Cambridge in March.

Kevlar* and Nomex*: Helping to increase motor racing safety.

It's quite normal for Formula One racing cars and even rally cars to reach 200 km/h and sometimes well over 300 km/h. Clearly, the smallest technical defect or driver error at such speeds can have serious consequences, which makes driver protection and safety crucial. Racing drivers know this. They wear helmets reinforced with KEVLAR and protective overalls made from flame-resistant NOMEX III.

Such precautions have already saved many a driver's life. Press reports suggest, for example, that this is the case with former world champion driver Niki Lauda, as well as Nelson Piquet and Gerhard Berger.

Nomex III - The superior flame-resistant material
In motor racing, spectacular accidents are, unfortunately, all too frequent. And if a car catches fire, a few seconds can make the difference between life and death.

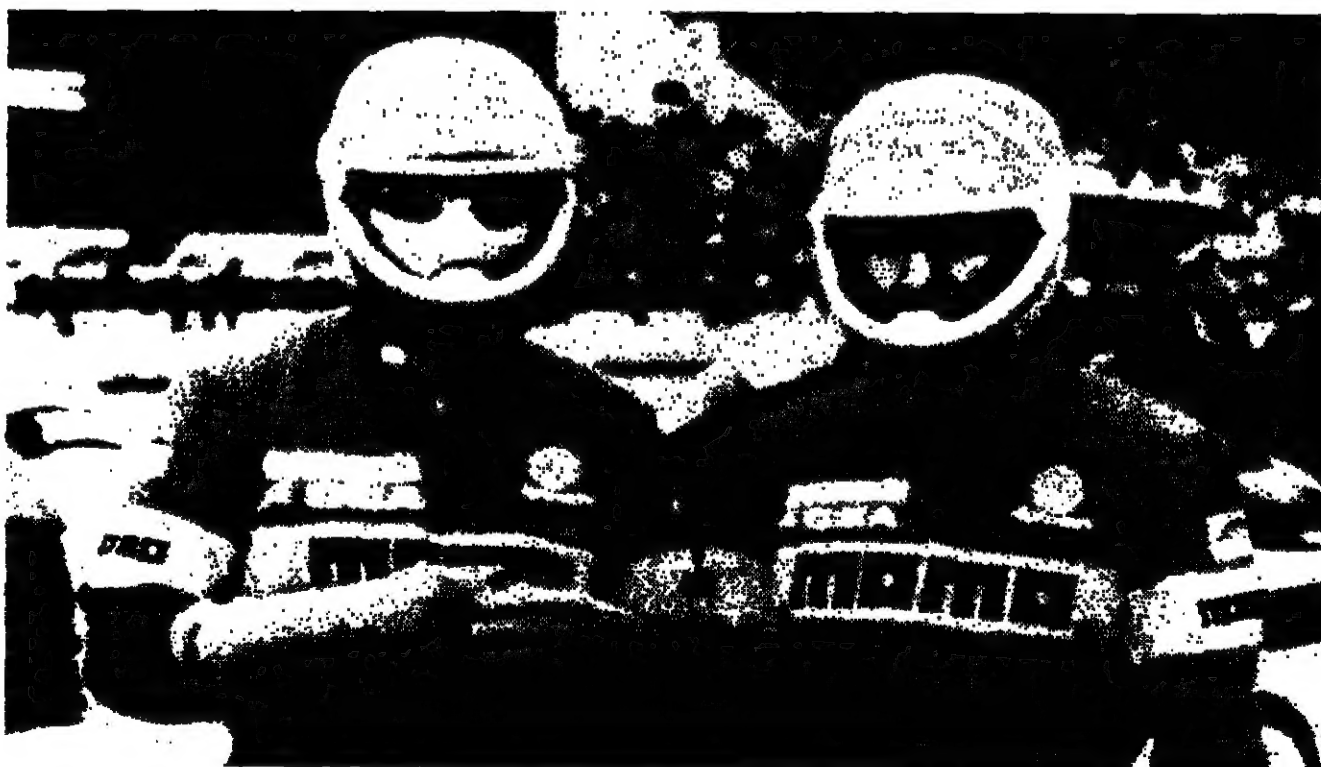
A protective garment made from NOMEX III can save a life in this sudden, critical situation. This heat- and flame-resistant fabric provides protection against fire for an exceptionally long period. NOMEX III is a blend of NOMEX meta-aramid and KEVLAR para-aramid developed by Du Pont. It has proven advantages over other heat- and flame-resistant textiles. This is mainly because the woven material does not break open even when exposed to flame, so that the skin is not directly exposed to the fire.

Du Pont has subjected NOMEX III to numerous tests which confirm its exceptional protective

properties. A special manikin developed by Du Pont, known as the "Thermo-man", is one of these. It is 1.85 metres tall and has 122 sensors distributed over its entire surface to register temperature, quantifying pain thresholds and the critical point when burns first occur. The results have provided invaluable information for the development of safer protective clothing. Critical protective clothing applications. Firemen, policemen and industrial workers can all find themselves in potentially dangerous situations. Garments of NOMEX III can be developed to provide the degree of protection required for different risk situations. And with a special advantage: material made from this patented fibre blend is as much as 40% lighter than flame-retardant cotton for the same protective performance. In addition, NOMEX III is resistant to most chemicals and does not melt.



Italian firemen wear clothing of NOMEX III



What's more, a protective garment made from NOMEX III is a good investment for another reason - its protective properties are permanent, even after long periods of wear and repeated washing. It will last about six times as long as a garment of flame-retardant cotton.

This is why public authorities and organisations are relying increasingly on clothing made from NOMEX III. In the U.K. the majority of professional firemen are equipped with NOMEX III. So are an increasing number in Germany. In Italy, all 25,000 members of the national fire service are equipped with protective garments made from NOMEX III.

World rally champion with Kevlar.
KEVLAR makes many contributions to the increased safety of motor racing. For example,



Group C - World Rally 1987 and 1988 for Jaguar - and elsewhere, for Dunlop tyres reinforced with KEVLAR as well.

it is used to reinforce helmets, car body components and tyres. A burst tyre at high speed is a nightmare for any driver. Hours of driving combined with repeated

heavy braking subject tyres to exceptionally heavy loads. Leading tyre manufacturers have therefore adopted KEVLAR to reinforce their high-speed and other specialty tyres. Tyres reinforced with KEVLAR have numerous advantages: they are lighter, develop less heat and withstand greater loads. Michelin, Pirelli and Dunlop have been using KEVLAR for some years with considerable success: most rally world championships in the past ten years as well as the 1987, 1988 and 1989 Group C World Championships were won on tyres reinforced with KEVLAR. The average motorist also benefits from KEVLAR. Not only in

tyres, but also in brake pads, clutch linings, cylinder head gaskets and cooling system hoses, KEVLAR enhances safety and reliability.

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Several years ago, KEVLAR pioneered a new era in fibre technology. Never before had there been

a fibre with so many outstanding qualities. KEVLAR is light, strong, corrosion-proof, heat resistant, self-extinguishing, non-magnetic and electrically non-conductive. And it retains all its useful properties from -40°C to +180°C. Du Pont is now once again setting standards in fibre technology with the KEVLAR "R" Series, which achieves significant performance improvements for specific applications. KEVLAR "R" has, for example, higher tensile strength; KEVLAR "Rm" a higher modulus of elasticity; and KEVLAR "R" greater adhesion. KEVLAR "R" is available in other colours as well as the original yellow, while KEVLAR "H" is ideal for optimising performance of sports equipment.

Innovative technology means progress.
KEVLAR and NOMEX are produced by the Engineering Fiber Systems division of Du Pont, which also develops TETRON, TYVEK, TYPAR, CORDURA and high-strength Nylon. From house and home to land and space, these products have opened up new perspectives. Du Pont is one of the world's leading research-oriented companies, and currently employs more than 17,000 people in Europe alone.

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EUROPEAN NEWS

Soviet tanks 'moved east' to evade CFE treaty rules

By David White, Defence Correspondent

THE SOVIET army is believed to have shipped up to 7,000 tanks east of the Ural mountains in order to avoid having to destroy them under the CFE (conventional armed forces in Europe) treaty due to be signed next month.

The International Institute for Strategic Studies (IISS), in its latest "Military Balance", also claims that as many as 10,000 tanks had been collected near Kiev to be exported for scrap.

The geographical boundary of the planned CFE treaty - from the eastern side of the Atlantic to the Urals - is seen as one of its main potential flaws. Nato forces in North America are excluded in the same way as Soviet forces east of the Urals, but could be brought less rapidly into the European region.

The IISS believes the number of Soviet army tanks in the treaty area may now be 10,000 less than its published figures totalling almost 35,000. The shipping of tanks out of the treaty area took place while Moscow was arguing for a larger share of the Warsaw Pact's allocation of tanks in the treaty negotiations in Vienna. Following recent meetings in New York, a compromise has been reached between

One of the Soviet Union's top soldiers said yesterday he believed the Warsaw Pact would probably disband as a military organisation next year, Reuter reports.

Marshal Sergei Akhromeyev, an adviser to President Mikhail Gorbachev, told the German Communist Party daily Neues Deutschland that Nato should also relinquish its military role and concentrate on being a political body.

"I think that the Warsaw Pact as a military organisation will end its activities soon," he said. It was another matter whether it continued as a political organisation.

Nato's desire to restrict the Soviets to 12,000 tanks in Europe - 30 per cent of the combined total - and Moscow's demand to keep at least 14,000.

Tanks and other equipment over the treaty limits will be scheduled for destruction. Nato, including the former German Democratic Republic, and the Warsaw Pact will each be limited to 20,000 tanks in the Atlantic-to-Urals region.

Nato is reported to have yielded to the Warsaw Pact's

proposal of a similar 20,000 limit on artillery pieces. This is 1,500 more than Nato's current strength and compares with the 15,500-a-side limit the western allies were proposing until now. However, according to the British-American Security Information Council, an independent study group, the Soviets will be restricted to 33 per cent of the combined 40,000 total, a lower proportion than they were seeking.

The compromise on "sufficiency" rules - how much of the combined total of any weapon category may remain in the hands of one country - would involve an average of 33.7 per cent, the organisation said, citing a US official.

The main barrier to an agreement on limiting combat aircraft - the question of land-based aircraft flown by the Soviet navy - has also been resolved. Negotiators in Vienna still have to overcome difficulties about helicopters.

The IISS said the latest edition of its "Military Balance", the standard guide to the world's armed forces, would probably be the last to contain a separate section for the Warsaw Pact.

The Military Balance 1990-1991, IISS/Brassey's, £29.95/\$44.95 or £39.95/\$59.95 hardback.

Oslo sees greater oil dependence

By Quentin Peel in Moscow

NORWAY'S centre-right Government yesterday proposed a budget which foresees greater reliance on cash from North Sea petroleum in 1991 while predicting that high oil prices spurred by the Gulf crisis could be temporary, Reuter reports from Oslo.

The budget would cut personal taxes, increase spending on environmental protection and freeze Norway's defence spending at 1990 levels. Taxes on alcohol and cigarettes, already among the highest in the world, would rise.

Mr Arne Skjerve, Finance Minister, unveiling the minority coalition's planned Nkr355bn (£31.2bn) budget, said: "One of the principal targets is to reduce the government's dependence on oil income."

He said the budget aimed to solve unemployment and slow growth in the country's non-oil economy. Norway is the biggest oil producer in western Europe after Britain.

Including revenues from oil and gas, the proposed budget would have a 1991 deficit of Nkr5.5bn, little changed from a Nkr5.3bn shortfall in 1990. The year-old minority coalition government has just 62 of the 165 seats in parliament and needs support from parties either to left or right to pass its budget.

Gorbachev adviser warns of threat to Soviet economic reform programme Russian spending plans attacked

By Quentin Peel in Moscow

PRESIDENT Mikhail Gorbachev's economic adviser, Professor Nikolai Petrakov, has warned that heavy spending plans proposed by the Russian parliament could undermine the country's economic reform programme.

Only days after approving the plan for a 500-day transition to a market economy, which requires a brutal austerity programme to cut government spending, the Russian government and parliament had approved hefty meat price rises, and proposed a new deal on pensions, which would add some Rbs34bn to the state budget deficit, he said.

Accusing them of "dangerous incompetence," Prof Petrakov warned that it was now the parliament, both of the Russian Federation and the USSR itself, which were the greatest threat to economic reform, and not the government itself.

In an interview, he called for new talks between President Gorbachev and Mr Boris Yeltsin, president of the Russian parliament, in an effort to stop further undermining of the reform programme.

Prof Petrakov, who is a co-author of the 500-day plan and a member of the commission

seeking to draft a common programme for the entire union by October 15, said the parliamentary confusion was a good reason for the economic reforms to be introduced by presidential decree.

He disclosed that decrees could be expected next week on both a new foreign investment code and on "the commercial rate of the rouble," almost certainly a long-awaited devaluation of the official rouble exchange rate.

Such a move would be intended to boost the competitiveness of Soviet manufactured exports, while it would also raise the rouble income to the state from oil exports, helping to reduce the huge budget deficit. That is expected to reach almost Rbs90bn this year, and could total Rbs340bn next year if the drastic austerity measures are not adopted.

The president's adviser said the Russian government and parliament had approved the meat price rise only four days after approving the 500-day programme last month.

The move had immediately caused meat shortages in the neighbouring republics of Ukraine and Belorussia, as farms shipped their meat to Russia to get the higher pur-



Petrakov: Russian parliament "dangerously incompetent"

chase price. To prevent a food war, the union Government decided last week to extend the price rise nationwide.

By raising state purchase prices for meat, but not allowing retail prices to rise at the same time, the measure would add Rbs15bn to the budget deficit in a full year, he said.

Now the Russian parliament was set to approve a pension increase throughout the federation - where more than half the Soviet population lives - which would add another Rbs19bn to state spending.

Prof Petrakov said the com-

mission set up by the Supreme Soviet to finalise a single reform plan was attempting to accommodate proposals from all the union republics. It would also spell out a more precise timetable for the 500-day programme, at least month-by-month.

On the question of a referendum on land ownership, he said it was for the president to decide. However, he suggested that a compromise, to introduce leasehold ownership in perpetuity rather than freehold ownership of land, might make a referendum unnecessary.

Poll fails to address crisis of identity

By Judy Dempsey in Vienna

A SENSE of what Vienna must have been like in the heyday of the Habsburg Empire is slowly returning to this rich and elegant city.

A cacophony of tongues fills the air. Baskerville, along with the main shopping precincts, along with Polish, Czech, Serbian and Romanian. String quartets from Slovakia compete for shillings with accordion players from Montenegro. The city is full of sounds.

But for the Austrians, who go to the polls on Sunday, the influx of their east European cousins into this well-heeled city is far from welcome.

The fate of these impoverished visitors has become one

troops occupied parts of Austria, sought to suppress conflict.

Instead of parliament becoming a genuine debating chamber, all decisions were thrashed out behind closed doors between the Socialists and the People's Party. Most jobs, from bank directors and factory managers, to professors and teachers were divided between the socialist "reds" and the conservative "blacks", as they have always been known.

Membership of either party was almost compulsory to gain promotion. Indeed, Austria has one of the highest per capita party membership rates in the western world.

But while the consensus maintained stability, it weakened the political direction of the two parties which have formed the socialist-led government coalition since 1987.

The socialists will probably scrape home with the most seats on Sunday, but not because of their popularity. The party is ideologically divided, burdened by corruption scandals and uneasy about making the transition from a socialist to a modern social democratic party. It is kept together by the 53-year-old chancellor who commands nationwide support. Without Mr Vranitzky, the party would probably drift into oblivion.

The People's Party is in no better shape. Mr Rieger, 62, has failed to persuade voters that he is chancellor material. In addition, he has failed to shine as vice-chancellor, since he remains under the shadow of the articulate Mr Vranitzky.

However, uneasy the coalition, both parties are determined, if not destined, to remain together. For them, the surge of support for the "blues", the political colour of the Freedom Party, can no longer be ignored.

Since 1987, Mr Haider's Freedom Party, once a political nesting home for former Nazis, has eaten into the "black" conservative vote in local government elections. At the last elections in 1987, the party gained 8 per cent of the vote. On Sunday, it is expected to win between 16 and 20 per cent, with the Socialist and People's parties each battling for 35 per cent.

The Freedom Party's success stems from the personality of the 40-year-old Mr Haider. He is a populist who speaks out for the "small people". He attacks the *perestroika*, which amounts to compulsory party membership in all unions and associations; he challenges the way decisions are made in "red Vienna", above all, he taps the latent anti-foreigner feelings of many Austrians.

The Freedom Party sparked off the debate about stemming the flow of east Europeans into Austria, a debate which the socialists, in order to gain votes, joined. In doing so, Mr Haider publicly articulated sentiments which until recently were suppressed.

His party may gain enough seats to persuade some People's Party rank and file into considering a coalition with him. The cost would be high, according to Viennese intellectuals across the political divide. They say that such a coalition, fuelled by nationalist and xenophobic sentiments, would undermine Austria's attempts at forming a coherent policy towards the new eastern Europe and Europe as a whole. The current coalition, they add, is the only option.

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WORLD TRADE NEWS

GM chief opposes Japan car import curbs in Europe

By Kevin Done, Motor Industry Correspondent, in Paris

MR ROBERT EATON, president of General Motors Europe, said yesterday it was "an illusion" to assume that protectionist measures against Japanese car sales in Europe would succeed in the long term.

He believed the European car industry "may require a transitional period before liberalisation of Japanese imports in restricted markets can take place."

Mr Eaton's remarks underline the differences between car makers in Europe in formulating a policy for Japanese car sales after the creation of a single market in Europe. The single market implies the removal of bilateral controls on Japanese car imports in France, Italy, Spain, Portugal and the UK.

He said GM would not oppose a transitional agreement in view of the many years that Japan had closed its borders at the expense of the European and American car industry.

GM was putting its prime emphasis, however, on closing whatever efficiency gaps might exist vis-à-vis the Japanese competition and on getting ready to take them on in the market," he told a conference of motor industry financial

analysts at the Paris motor show.

GM, the world's largest car maker, holds a share of more than 11 per cent of the west European car market.

Earlier this week Mr Jacques Calvet, the hard-line protectionist chairman of Peugeot of France, the third-placed car maker in Europe, enflamed the debate with a call for a halt to all negotiations between the European Commission and Tokyo on phasing out import controls.

He demanded a ban on the building of any new Japanese car plants in Europe and a cut in production volumes at the three plants being developed in the UK by Nissan, Toyota and Honda.

Quotas on Japanese car sales in the EC should be maintained for at least 10 years from the beginning of 1993, with the possibility of a further extension beyond the year 2002, if the Japanese failed to show "reciprocity".

Mr Eaton said "many European plants are not yet ready to compete head-on with the Japanese in a truly open market."

"In the end, the Japanese will wait until the rules are set and then do what they have to do."

● The creation of a single market in Europe should mean added growth and incremental demand for about 1m cars a year in the EC by the year 2000, said Mr Eaton. GM was currently forecasting a growth in new car sales in western Europe to 14.4m in 1995 and 15.7m in the year 2000 compared with sales last year of 13.4m.

● Toyota, the Japanese car giant, has bought land near the city of São Paulo in Brazil, and may build a car manufacturing plant there, Victoria Griffith reports from São Paulo.

Toyota bought the Dom Bosco farm late last week from the brothers Clóvis Antonio Cabrinó and José Carlos Cabrinó, who also own a car-parts dealership in the area.

The exact cost of setting up a car manufacturing plant in Brazil is not certain, but is estimated at up to \$20m.

Cabrinó and Toyota have both refused to name the price of the farm, saying only that it was purchased at "market value".

The Japanese company confirmed the purchase, but said it had not yet committed itself to building a car plant on the land. Dom Bosco is in the town of Indaiatuba, 68 miles north-west of São Paulo.

Modest venture with revolutionary results

Foreign enterprise helps bring change for Soviet women, writes Anthony Robinson

IN ITS own quiet way Femtech, a modest joint venture between the UK subsidiary of the US Tambrands company and the Soviet health ministry, represents a revolution in the sensibility of Soviet officialdom to the long-ignored needs of Soviet women.

The Soviet Union's first tampon factory, in a country where birth control means eight abortions in the life of the average Soviet woman and public toilets are both rare and primitive, represents real progress.

Thanks partly to lobbying by Mrs Margaret Thatcher, the British Prime Minister, the shell of a partly-completed machine factory near Kiev airport was turned over to the joint venture partners in 1988. It now turns out 70,000 cases containing 144 packets of tampons a year, a minuscule proportion of potential demand, but a start.

It is one of only four operating joint ventures in the Ukraine, although Mr John Cockburn, who is setting up office for accountants Ernst and Young, is working on the assumption that other western companies will soon move into the second-largest and populous of the 15 Soviet republics heading for greater independence.

Femtech was formed under the original joint venture legis-

lation which insisted on majority Soviet participation. The Soviet partner, the health ministry department responsible for all chemist shops, holds a 51 per cent share. It acquired the land and buildings, bought vehicles and put up part of the working capital. Tambrands's \$5m investment to date includes the imported machinery and materials - from specially treated absorbent cotton

working knowledge of how to secure supplies and open doors.

Mr Yuri Saakov, the Soviet general manager worked for 20 years as a foreign trade official "a comfortable life with regular hours and R&B900 a month". Now, he says, "I don't sleep and never take holidays. Instead of orders handed down the hierarchy we have to take our own decisions, without any subsidy from the state to bail us out if we make mistakes."

Less than 18 months after start-up, productivity of the 195, mainly female workers is "better than our plants in China, Ireland and France and similar to the UK and the quality is up to our worldwide standard", says Mr Gary West, the American deputy general manager.

He looked for cleanliness, intelligence and the age of a woman's last child in choosing what has turned out to be a stable, contented and productive workforce. The twin production lines, in a warm, well-lit and clean environment hum with quiet efficiency. On top of an average monthly salary of Rb232, above the Soviet average, all workers get a 50 per cent monthly bonus and two free packets of tampons. Each packet is priced at Rb3.50 but fetches 16 times that on the black market.

Soon, however, Femtech

could be facing its moment of truth. Until now around 65 per cent of the raw materials and packaging have been imported "effectively turning good money into bad", as Mr West puts it.

Next year the target is to raise production from 70,000 to 150,000 cases based on 90 per cent locally-produced inputs. Then Femtech hopes to export both processed cotton rolls and

new climate of republican economic nationalism - the Uzbekis are demanding hard currency payments, which defeats the object of saving hard income profits from the joint venture.

With cotton in union-wide short supply Femtech also faces opposition to its planned export of processed cotton rolls. This is despite research which shows that the average Soviet woman uses 16 grammes of cotton wool for her home-made sanitary pads compared with only 3 grammes in every tampon.

"Even though we exported bleached cotton fibre to recoup hard currency the Soviet Union would still save on cotton by wider use of our tampons," Mr West argues.

Such rational calculations have not been part of the average Soviet planner's armchair. It could get even more complicated as economic decision-making devolves from the centre to republican, local soviet and factory level, as proposed by the recently-adopted plan for a 500-day crash transition to a decentralised market system.

The fate of many a joint venture could hang on the way policymakers react to the need for joint venture partners to make hard currency profits if they are to expand their operations

up to a third of the finished product to the UK and other western markets for hard currency.

A Soviet-owned factory 130 miles away at Cherkassia has already been equipped to process cotton from Uzbekistan. This has been supplied to the Ukrainian factory through a crude barter swap of Ukrainian wheat for cotton. But in the

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Talks on farm trade fall behind schedule

By William Duillea in Geneva

TALKS ON world farm trade reform have started to fall behind the timetable set by the Uruguay Round's governing Trade Negotiations Committee in July. This aimed at achieving results by early December, when trade ministers are due to meet in Brussels to conclude the Round.

By yesterday, when the group negotiating on agriculture reconvened, only 11 countries had submitted the lists of their farm supports which should have been with the Gatt secretariat on October 1.

The 11 countries which had submitted their lists were Argentina, Australia, Austria, Canada, Finland, Japan, New Zealand, Singapore, Sweden, Switzerland and Uruguay. The most noticeable absences were the European Community and the US, the leading players in the talks.

Not all the lists tabled comply with the formula laid down by Mr Aart de Zeeuw, the chairman of the farm talks, and the Gatt secretariat.

Japan, for instance, has not disclosed its supports for rice and for a number of meat and cereal products.

October 15 is the crucial deadline by which countries have to table their programmes for liberalising their farm supports. The country lists due on October 1 were intended to form an information base for the complicated give-and-take exchange of concessions. Had they been submitted in time, the negotiating group could have started to decide on the mechanisms to be used in organising reform.

A senior US official said the US lists had been handed to Mr de Zeeuw but Washington was reluctant to allow them to be circulated, until it was evident that other countries were ready to follow the formula set by the Gatt secretariat.

The European Community said its lists would be tabled shortly, together with the proposals for reform that EC farm and foreign ministers were expected to approve next week.

Eximbank completes its busiest year in a decade

By Nancy Dunne in Washington

THE US Export-Import Bank, one of the Reagan Administration's most unwanted stepchildren, has just completed its most active year in a decade.

In the last days of the fiscal year, the agency's press office was kept busy with a multitude of announcements, including two guarantees - one, for \$1.37bn, the largest ever granted - for sales of defence equipment to Turkey; \$200m-worth of credit lines to Central America; a \$125m tied-aid credit facility for the Philippines; the first use of its long-awaited interest rate subsidy scheme; and a large expansion of its medium-term "bundling" guarantee facility which backs Mexican paper on the capital markets.

Under the bundling programme, announced last March, Mexican companies are getting medium-term US dollar financing from Mexican banks for purchases of capital goods, quasi-capital goods and related services. The Mexican banks draw on an Eximbank line of credit from a US bank to finance individual Mexican purchases. Once the drawings reach a sufficient total value, they are "bundled" into Eximbank-guaranteed notes and used for access to US capital market financing.

According to Mr Eugene Lawson, Eximbank vice-chairman, the "bundling" programme has so far sold \$340m in notes, and another \$370m in sales is pending.

Prodded by legislation passed this year, the agency

broke with long-standing tradition to give approval for a \$1.2bn guarantee to back the \$1.6bn sale of 200 helicopter kits to Turkey.

In this case, and for a separate \$55.4m sale to Turkey of modular control and automatic tracking equipment for radar, the bank made an exception to what it still considers to be the rule against support of defence sales.

Eximbank has begun its own "pro-active" mixed credit programmes to the commercial exports to foreign aid.

In many cases it has joined forces with the Agency for International Development (AID), the US foreign aid agency. Four \$125m guarantee facilities for the Philippines, Indonesia, Thailand and Pakistan have won preliminary approval for sales to the power, telecommunications, construction and transport sectors.

The Philippines facility is now operating, and the programmes for Indonesia and Thailand are expected soon. For the Philippines, Eximbank will guarantee \$81.25m in loans by commercial lenders and provide \$12.75m from a special Tied Aid Credit Fund. AID has made \$30m in grants available.

Another \$24.7m mixed credit was announced this week to finance the sale of air traffic control equipment by Westinghouse Electric to Morocco's Ministry of Finance.

Demand for Eximbank loans has far exceeded supply this year with the agency committing \$160m more than it has.

Ericsson wins three orders

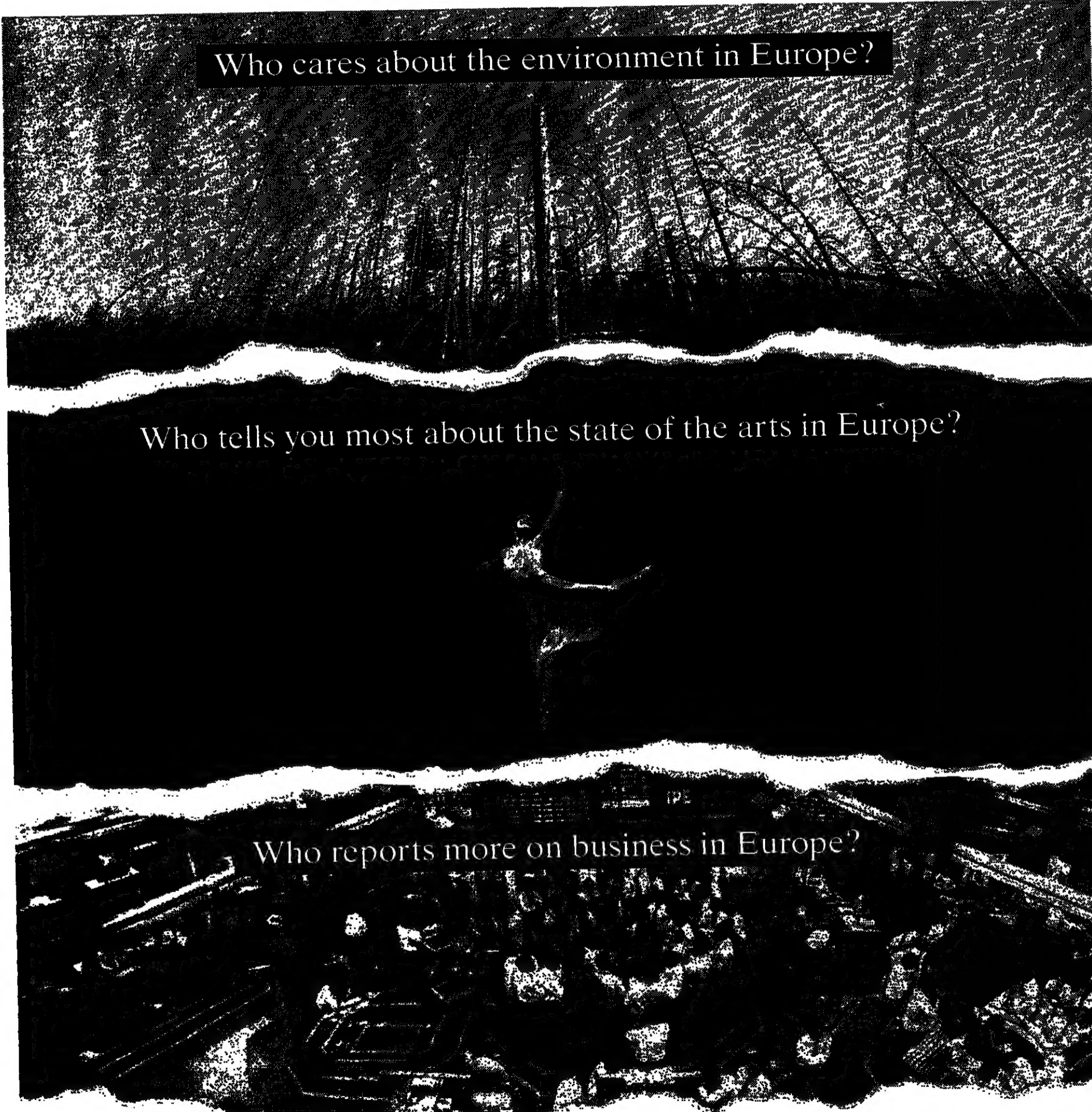
By John Burton in Stockholm

ERICSSON, the Swedish telecommunications company, has announced three orders totalling SKr1.6bn (\$147.7m) for cellular telephone systems in the US, Mexico and Singapore.

Ericsson said that it would become the biggest supplier of cellular systems in the US in terms of number of subscribers with a SKr1.1bn order from McCaw Cellular Communications and its subsidiary, LIN Broadcasting, for networks in

the New York and New Jersey metropolitan area and in Seattle and Portland. The systems will be supplied by Ericsson's US mobile communications joint venture with General Electric.

The SKr400m Mexican order is for the supply of cellular service to the cities of Guadalajara and Monterrey. Ericsson will also deliver a mobile telephone system to Singapore under a SKr200m deal.



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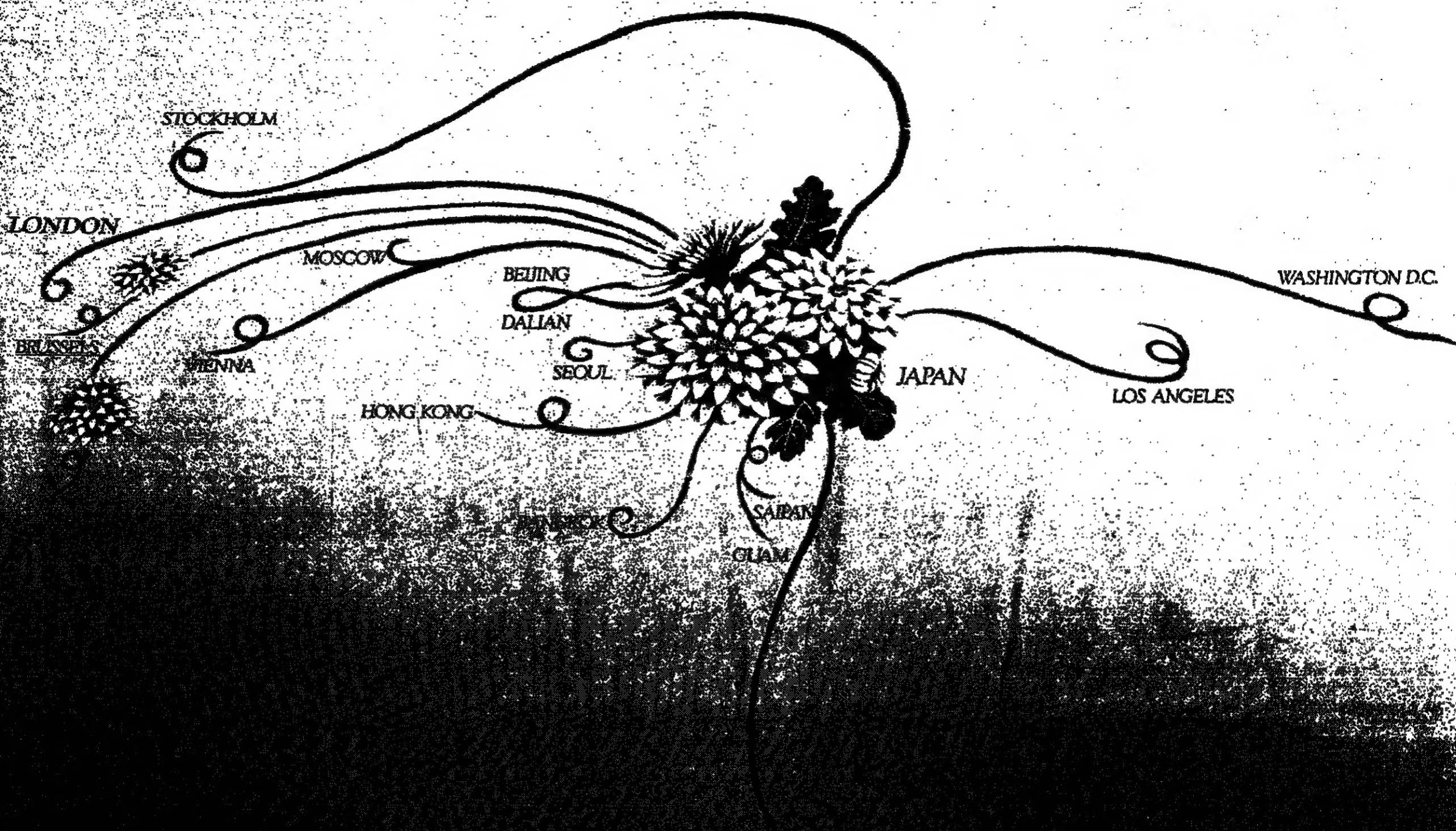
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AMERICAN NEWS

US semiconductor makers urge new pact with Japan

By Louise Kehoe in San Francisco

US semiconductor and computer manufacturers are taking a united stand in urging the US government to seek a new five-year semiconductor trade agreement with Japan, to begin when the current highly controversial 1986 pact expires next summer.

In meetings with Mr Robert Mosbacher, the US Commerce Secretary and Mrs Carla Hills, US Trade Representative (USTR), the industry groups called for a new trade agreement that would expand foreign access to the \$20bn Japanese semiconductor market.

The initial reaction of the government officials was "very positive", said Mr Wilfred Corrigan, chairman of the Semiconductor Industry Association, and chairman and chief executive of LSI Logic, a Silicon Valley chip manufacturer.

The US computer and semiconductor manufacturers have long been at odds over Japanese semiconductor trade issues. Computer manufacturers complain that anti-dumping measures incorporated in the current bilateral pact have forced a significant rise in prices of Dynamic Random Access Memory (DRAM) chip,

most of which they buy from Japan. US chip makers have maintained, however, that strong anti-dumping measures are essential.

Working through two trade groups, the Semiconductor Industry Association and the Computer Systems Policy Project, the industry sectors have now arrived at a compromise.

Under the current agreement, the US expected foreign semiconductor sales to grow to 20 percent of the Japanese market by 1991. That target is unlikely to be met before 1992, at current rates of progress, US semiconductor makers acknowledge. They propose that in 1993 the governments negotiate a new, higher target.

The industry groups also propose that the current system setting "fair market value" prices for Japanese memory chips and requiring regular reporting of Japanese prices be dismantled. Instead, the US Commerce Department would have "fast track" access to Japanese pricing data if a dumping complaint were filed. The proposals appear moderate, compared to earlier industry calls for increased sanctions against Japan.

Brazil poll strengthens support for Collor

By Simon Fisher in Rio de Janeiro

PRESIDENT Fernando Collor de Mello, who until early last year was a little-known regional politician, looks likely to have the support of about half Brazil's 505-member Chamber of Deputies and most of the 27 state governors after Wednesday's elections.

However, the poll for senators, congressmen and state governors appears to have bolstered the traditional power of regional strongmen, whose appeal is based on patronage rather than ideology.

The final composition of federal and state legislatures will not be known for about two weeks, and candidates for governors who fail to secure an absolute majority will face a second round of voting at the end of next month.

Nevertheless, exit polls indicate that the minority government of Mr Collor is likely to be able to bargain federal resources with many of the winners, in exchange for political support.

The results may disappoint those who hoped that Brazil's transition to democracy would also imply political modernisation, but it is a result the administration can work with.

Cable television operators block Senate drive to tighten curbs

By Peter Riddell

ATTEMPTS to impose tighter regulation on rates charged by US cable television companies and to stimulate increased competition have been blocked, for this year at least, by cable operators and their Senate allies.

The widely backed legislation was a response to excessive increases in rates and poor service in many areas since the deregulation in 1984 of what has become an \$18bn (\$9.5bn) industry.

Opposition has been led by Senator Tim Wirth of Colorado, the state in which Telecommunications Inc is headquartered. Its political action committee

and senior executives have been big financial contributors to the senator.

The main argument has been over proposals to give competitors of cable - such as satellite services - improved access to programmes developed by cable networks. The Senate plan would have prevented cable operators that produce programming from discriminating against such competitors.

The Bush administration threatened to veto the Senate version, as it opposes re-regulation of cable rates, the access provisions, and limits on the size of cable companies.

The House passed a version restoring some regulation of basic cable rates, setting service standards and barring cable operators from unreasonably refusing to deal with competitors.

But, unlike the Senate version, it would have allowed cable companies to produce exclusive programming, notably with video companies, as long as this did not significantly impede competition.

The measure is, however, certain to be revived next year when the separate issue of entry of telephone companies into cable programming is likely to be raised.

Chile's monthly inflation at six-year high

CHILE'S monthly inflation rate soared in September to 4.9 per cent, the highest monthly figure in six years, as a result of rising oil prices, Leslie Crawford writes from Santiago.

September's increase was more than double the August rate of 2 per cent and brought the inflation rate to an annualised 29.3 per cent.

Chile, which has only a few depleted oil fields in the Magellan Straits, imports 86 per cent of its oil. The government cautiously raised the domestic

price of petrol and other oil derivatives by 25 per cent in late August, when the price of crude began to rise.

Officials at the National Statistics Institute say this accounted for more than half last month's inflation increase.

Since then the price of oil has briefly exceeded \$40 a barrel, forcing ENAP, the state oil refinery, to subsidise local prices to the tune of \$1m a day.

Mr Juan Hamilton, mining and energy minister, said yesterday the situation had

become unsustainable. He hinted that further stiff price increases were inevitable.

President Patricio Aylwin and members of his cabinet were holding an emergency meeting yesterday to formulate a response to the continuing volatility in oil markets.

Since the beginning of the year, the central bank has held the economy in a tight money grip to bring inflation down. But the rate is now back to levels reached in the final months of 1988.



David Duke in his Ku Klux Klan robes during a visit to Britain in 1978, which sparked a row over UK immigration controls

Former klansman puts a new face on racist past

Lionel Barber on a controversial candidate for the US Senate

MR David Duke, former Grand Wizard of the Ku Klux Klan and unofficial Republican candidate for the US Senate, is deadly serious when he assures Louisiana voters that man can be created anew.

Cosmetic surgery has recast his chin and rendered his face as smooth as porcelain. Matched with his blond, blow-dried hair, red tie, and dark blue suit, the effect is to make Mr Duke look like the average TV-friendly politician in this year's mid-term elections.

On Tuesday night Mr Duke appeared before a crowd of 950 men and women in the Yellow Rose ballroom on the outskirts of Lafayette, some 50 miles west of Baton Rouge. He spoke in a calm, reassuring voice which smoothed over a simple, if alarming, message: that all of America's problems, from crime, education and drugs, stem from the welfare system and the burgeoning - predominantly black - underclass.

"Working families are paying for illegitimate kids," he said, as a low chant of "Duke, Duke, Duke" spread across the saloon. "These people are having children faster than they can raise your taxes to pay for them."

Mr Duke's assault on the welfare system has drawn charges of racism and bigotry. But his theme has proved so successful that he has raised more than \$2m (\$1m), burying the officially endorsed Republican candidate and putting himself in a position to embarrass Senator Bennett Johnston, the incumbent Democrat, in tomorrow's primary election.

If the latest polls are correct, Mr Duke, 40, stands to win a bare majority of the white vote. This is not enough to win, as one in four registered voters is black. But it could deprive Mr Johnston, 58, of the clear majority he needs to avoid a run-off in November.

The Duke crusade would then continue, damaging the Republican Party's hopes of broadening its base among moderate whites and blacks in the south.

The latest Mason Dixon poll puts Mr Johnston - an intelligent, hard-working if bland politician who has served for 18 years in the US Senate - slightly over the magic 50 per cent mark.

However, Mr Duke's supporters say there is a hidden vote. Few people in the Yellow Rose saloon were willing to be quoted by name. Even fewer were prepared to guarantee they would vote for a man who until last year was selling Nazi literature from his bookshop, is a founder member of the National Association for the Advancement of White People, and penned pseudonymously a sex manual for women entitled *Finders Keepers*.

But voters in the US are in a sullen mood these days. Mr John Silber's upset victory in the Democrat primary election in Massachusetts last month showed the power of an outspoken outsider running an anti-establishment campaign in a recession-hit economy.

In Louisiana Mr Duke's coded rhetoric on race, crime and the underclass feeds a growing middle class economic resentment. He is a sugar-coated version of George Wallace.

Although unemployment in Louisiana has more than halved since the oil-bust of the mid-1980s, most of the improvement is due to people leaving the state; the jobless rate, at close to 7 per cent, is still the

highest in the US. Even more important, living standards are falling among the lower middle class.

Mr Lawrence Powell, a history lecturer at Tulane University, points out that incomes among oil, gas and construction workers have dropped by between 30 and 50 per cent in Jefferson Parish, the New Orleans suburb which last year elected Mr Duke to the state legislature and gave him a veneer of respectability.

Economics does not fully explain the depth of Mr Duke's appeal. The real story is that his official positions are only a few steps ahead of the conservative wing of the Republican party.

Just as President Ronald Reagan in his 1984 campaign denounced the "welfare queen" of New York - a woman who did inordinately well out of the benefits system - Mr Duke relates the story of the family in New Orleans whose single



mother and three teenage daughters are all pregnant by the same man.

Mr Duke's denunciation of affirmative action programmes for blacks - "we demand equal rights for whites" - is the more explicit version of the assault on the civil rights legacy which the Republicans have exploited to win five out of the last six presidential elections.

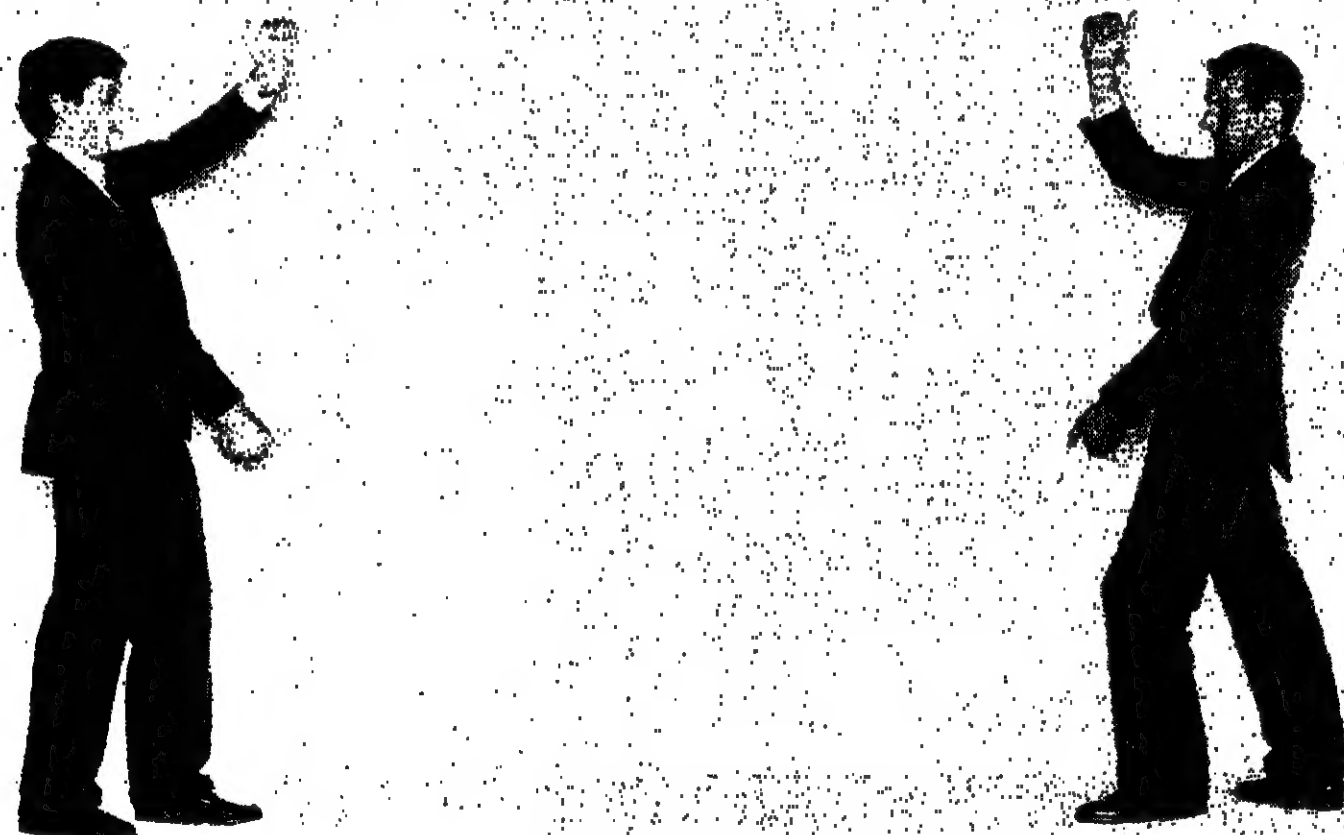
Mr Duke's skill has been to hone down his old racist ideas into a message of breeding by the lower class, matched by incentives for the genetically superior - into more acceptable policies, such as drug testing and mandatory instruction on contraception for welfare recipients. "My positions have evolved," he said in an interview this week. "In the past I was too shrill, too intolerant."

He confesses to admiring Mr Enoch Powell ("the first British politician to see the threat of immigration"); he likes Tom Wolfe's *Benjamin Franklin* ("the greatest synthesis in fiction of the decay of the west"); and his taste in classical music is a little suspicious. Why should a man play Richard Strauss's *Also Sprach Zarathustra* on declaring his candidacy for US Senate?

Belatedly, Senator Johnston has recognised he is in the fight of his life. Six Republican senators have denounced Mr Duke and declared themselves in support of their Democrat colleague.

A recent Democratic TV "attack" advertisement shows Mr Duke standing in front of a burning cross uttering the words "white power" - a damning shot which some say should halt his rise in the polls.

Victory for Mr Duke in November seems an impossibility - but he will not go away. He does not rule out running for governor - or even for president, two previous efforts notwithstanding. Either way, he says his campaign themes have helped widen the debate and forced both Democrats and Republicans to address the taboos of race, welfare and the underclass. He just may be right.



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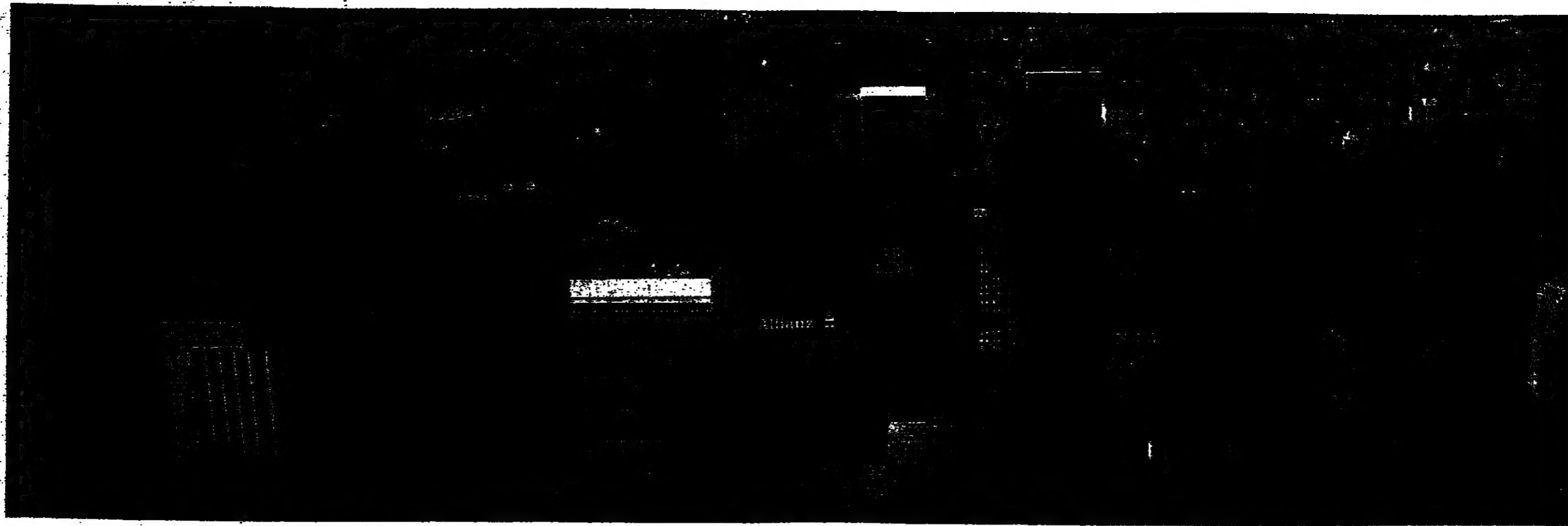
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INTERNATIONAL NEWS

The Iraqis have brazenly looted cars, airliners, gold, even football stadium seats, reports Robert Graham

The rape of a nation: inside Kuwait today

AS THE Iraqi occupation of Kuwait enters its third month, occupying forces have become more brutal. A growing batch of administrative measures are pushing through an aggressive "Iraqisation" of the country as life in Kuwait deteriorates.

Armed resistance by the Kuwaiti underground has been ruthlessly suppressed. Since mid-September the emphasis of resistance has shifted to ensuring a tightly-run policy of non-cooperation with the Iraqi administration, organising escape routes for those sought by the Iraqis and supplying intelligence to the US-led multinational force in Saudi Arabia. The exodus of Kuwaitis and others has been reduced to a trickle.

Ever since the August 2 invasion, Iraqi troops have conducted a wholesale rape of the state. Although not systematic, Iraqi policy has three prongs:

- Kuwait's full annexation is being emphasised by forcing Kuwaitis to assume Iraqi citizenship and by dividing up the state into two new administrative provinces of Iraq.
- The country is being deliberately run-down - either to allow Kuwait to be on the same economic footing as Iraq, or, in the event of an Iraqi withdrawal, to leave a ruined shell.
- All vestiges of the ruling al Sabah family have been removed and the occupying forces are seeking to exploit the differences between the Kuwaiti and non-Kuwaiti population, especially the large resident Palestinian colony. Iraqis are also being settled in Kuwait. The aim is to ensure a strong permanent pro-Iraqi segment of the population. In the event of an Iraqi withdrawal, Baghdad hopes this new political grouping would remain a destabilising force capable of curtailing al Sabah authority, encouraging similar movements elsewhere in the Gulf.

POPULATION: Of the 1.9m pre-invasion population, 750,000 were Kuwaitis and 1.15m non-Kuwaitis. Roughly 600,000 Kuwaitis were outside the country on August 2. Since then at least 130,000 have left, most to Saudi Arabia where the al Sabah family has established a government-in-exile at Taif.

Kuwaitis, particularly men aged between 17 and 47, find it almost impossible to leave with their nuclear documents. On this basis the London-based Committee for Free Kuwait estimates the Kuwaiti population has now stabilised inside the country at around 500,000. Others suggest the figure may be closer to 600,000.

Of the non-Kuwaitis, at least 100,000 Egyptians, Syrians and other Arab nationals have left and others are still trying to leave. The same applies to Bangladeshis, Indians, Pakistanis, Filipinos, Sri Lankans and Thais. Western women have been evacuated and the remaining westerners are either in hiding or have been taken prisoner.



Meeting the troops: Saddam Hussein in Kuwait on Wednesday

Up to 100,000 of the 330,000 strong Palestinian community departed in the aftermath of the invasion but some have returned because they have nowhere else to go.

ADMINISTRATION: The border area with Iraq has been incorporated as an extension of Basra province and renamed Saddamiyat al-Mithla - suggesting an eventual Iraqi fall-back position. Kuwait City (renamed Kadhimia) and its suburbs has since August 29 been incorporated as the 19th province of Iraq. The governor is Ali Hassan al-Majid, Iraq's minister of local government, a cousin of President Saddam Hussein with a sinister reputation for his brutal dealings with the Kurds. Though a civilian he has authority over all the military commanders and is backed by Mr. Abdul-Jaber al-Ghani al-Douri, former Iraqi ambassador to Bonn, who allegedly co-ordinated the purchase of materials for chemical and nuclear weapons. Kuwait time has been standardised with Iraq (Kuwaitis who do not comply get their watches smashed). Street names have been changed and huge portraits of Saddam Hussein have been posted. The city itself has been divided up into military zones. These cover three residential zones each with a population of some 15,000. There are estimated to be 600,000 Iraqi troops within the state and the Iraqis are employing a mixture of regular forces and their intelligence services to control the city as well as police commissioners from the ruling Iraqi

Baath Party. Co-ordination between the respective zone commanders is poor because of the vertical and bureaucratic nature of the Iraqi command structure. Soldiers continue to rely upon either looted supplies or forcing Kuwaiti families to feed them for sustenance.

The Iraqis have brought in an unknown number of Palestinian fighters from Iraq (possibly as many as 4,000). This Palestinian presence appears intended to convey the impression that the Palestinian population endorses the Iraqi annexation. Early reports of Palestinian collaboration were exaggerated.

RESISTANCE: The Kuwaiti resistance movement has been hit hard. No reliable figures are available for casualties but a minimum of 1,200 dead is considered reasonable. The difficulties of operating in an easily controlled city coupled with average Iraqi reprisals (summary executions, the razing of houses and threats to kill those harbouring suspects) has forced the resistance to revise tactics.

It is now operating underground. The immediate strategy is to ensure that the population pursues a policy of non-cooperation by such actions as staying away from work or destroying copies of the pro Iraqi al-Nada newspaper. The resistance also helps in the distribution of food, collects intelligence, hides or helps the escape of both foreigners and Kuwaitis wanted by the Iraqis and prints clandestine leaflets. The Iraqis have reacted by

concentrating on house-to-house searches for arms, typewriters, photocopies, communications equipment and foreigners. The death penalty exists for hiding foreigners. Telephones remain cut. There are also increased reports of men being taken away for torture and intimidation for up to three days to sow a climate of fear. Movement between residential zones has become difficult and a night curfew is in force.

As of October 6 all Kuwaitis are obliged to obtain an Iraqi identity card. Kuwaitis can only withdraw money from bank accounts on presentation of an Iraqi identity card and all Kuwaiti civil servants are expected to sign a contract binding them to work for the Iraqi state on similar conditions as their Iraqi counterparts. Those leaving the country are stripped of their Kuwaiti passports.

LIVING CONDITIONS: Electricity and water are available, though cut to all foreign embassies which Iraq no longer recognises. The annual overhaul of the desalination plants however is overdue and residents have to boil water. Fresh fruit and vegetables are unavailable but adequate stocks of basics plus canned food remain and these are being distributed by Kuwaiti neighbourhood committees.

A number of banks remain notionally open. But the amount Kuwaitis are allowed to withdraw has been cut from an initial 250 dinars a month to 50. The banks are mainly being used by non-Kuwaitis who are suffering

greater hardship. All have suffered from the enforced parity of the Iraqi dinar with the Kuwaiti dinar. Before the invasion the harder Kuwaiti currency was worth 20 Iraqi dinars. A black market rate of five to one exists, largely because in Saudi Arabia the Saudi dinar is treated as legal tender at its pre-invasion value.

Rubbish is being burned where possible by neighbourhood committees. But health care is rapidly declining. Valuable hospital equipment and stocks of drugs and medicines have been removed to Iraq. Kuwait's five general hospitals and eight specialised hospitals have either been looted by the Iraqis or are run with reduced staffs. The Iraqi military have taken over the city's orthopaedic hospital, the al-Adn hospital and are in the process of commandeering the main hospital, the Mubarak al-Kabir.

DAMAGE: At the individual level, private homes have been brazenly looted. Homes are closed up and then revisited on three or four occasions. The officers tend to take small easily pocketable items like gold and jewellery, the troops loot electronic goods. Of late, the Iraqis have begun to remove more substantial household contents in trucks. Car theft is universal. At least 50,000 cars worth \$1m have been stolen.

The central bank has reportedly had \$500m removed in gold and a similar amount in banknotes and other securities. The gold stock has been ransacked. Public buildings and institutions have been systematically pillaged, their contents removed to Baghdad. Having first gone for high-technology equipment and food stocks, or items like the 15 Kuwait Airways aircraft at the airport and Kuwait's military material, attention is now turned to schools, libraries and even the seats of a football stadium. The city has been deliberately allowed to deteriorate. Constant use of streets and flyovers by tanks and tracked vehicles has cracked bridges and torn up highways.

OIL INSTALLATIONS: No serious damage has been reported to oil production facilities, tank farms or the three refineries. But with oil exports halted since the invasion, there are concerns about maintenance. Kuwait is losing \$15m a month through frozen oil exports.

The Iraqis have planted mines and attached explosives to and around all key oil installations. Kuwait's three sophisticated refineries can refine 800,000 barrels of crude a day and have a replacement cost of at least \$100m. Within the past ten days, the Iraqis have constructed at least one pipeline from the oil fields to the export loading terminal at Ahmedi. This goes directly into the sea. It is now thought the pipeline is intended to flood the sea with oil. This could then be ignited if necessary. Additional research by Tony Walker

Hurd urges plan for Mideast peace

By Robert Mauthner, Diplomatic Correspondent

THE five permanent members of the United Nations Security Council should start preparing a Middle East peace conference once Iraq has withdrawn from Kuwait, Mr Douglas Hurd, the British foreign secretary, said in London yesterday.

Mr Hurd, who was addressing the Diplomatic and Commonwealth Writers' Association, went much further than the British government has done in foreshadowing a wider Middle East settlement after the Gulf crisis.

While not ruling out the possibility of war as a result of President Saddam Hussein's actions, he put the accent on a peaceful solution.

There was no hope of progress until Mr Saddam had been "driven out of Kuwait", he said. However, like US President George Bush and President Francois Mitterrand of France, Mr Hurd emphasised that the Palestinian problem must be tackled as soon as the Gulf crisis had been overcome. "Anyone with a sense of humanity must sympathise with the Palestinians," Mr Hurd said. "No-one can be surprised that the *intifada* [upris-

Chemical weapons threat 'overstated'

By David White, Defence Correspondent

IRAQ'S ability to make effective use of chemical weapons in the Gulf may have been overstated, according to the International Institute for Strategic Studies.

ISS experts believe the most likely use of Iraqi chemical weapons would be as a last option terror weapon against civilian targets. This would be less effective in Saudi Arabia than against a more densely populated target such as Israel.

Iraq has missiles that can reach Saudi Arabia, but experts doubt these can carry large chemical warheads. Mr Francois Heisbourg, the institute's director, said Iraq would also have to take Israeli retaliation into account.

Colonel Andrew Duncan, responsible for the institute's annual Military Balance, published today, said Iraq was presumed to have the means to deliver chemical weapons with artillery shells and possibly surface-to-surface missiles. But he said the Franco-German Roland air defence systems

a range of less than 150 miles, could carry a "useful" payload of up to 500kg, this was reduced to about 150kg on the extended-range versions developed by the Iraqis.

In the past Iraq used chemical weapons against Kurdish civilians and against the Iranians in set-piece attacks on heavily-defended and easily-targeted positions. The use of chemical weapons on a less static battlefield was "not easy and not terribly effective," Col Duncan said.

The latest Military Balance, with data up to June 1, shows Iraq's air force at 589 combat aircraft, compared with 513 estimated a year earlier. This includes 16 new Soviet Su-24 fighter attack aircraft. The number of short-range Su-26 ground-attack jets has grown from 60 to 90, and the latest MiG-29 fighters from 18 to 30. Iraq also has 1,500 Soviet BMP armoured fighting vehicles - 50 per cent more - and 100 Soviet tanks. The Franco-German Roland air defence systems

Australian bank probe ordered

By Kevin Brown in Sydney

A SUMMERING row between Australia's Labor government and the main banks boiled over yesterday when Mr Paul Keating, the treasurer (finance minister), announced a parliamentary inquiry into the banking system.

Mr Keating said he had asked the House of Representatives finance committee to investigate bank lending margins following a Treasury study which showed prime rates had not fallen in line with official money market rates.

The inquiry follows earlier suggestions by Mr Keating that the banks were keeping commercial lending rates high to offset losses caused by loans to failed Asian entrepreneurs.

"The banks have been attempting to recoup the costs to them of their bad debts and non-performing loans by increasing the burden on the customers who still have the cash flow to pay higher interest premiums," Mr Keating said.

The treasurer said Australia's big banks appeared not to have changed their attitude to customers since the industry was deregulated in the early 1980s.

He appeared to have in mind the ANZ Banking Group, Westpac and the National Australia Bank, the three quoted retail banks. Commonwealth Bank, the fourth big bank, is government-owned but operates commercially. Mr Keating said lending margins had fallen following pressure from the government, but were still higher than necessary, and had widened since 1989. It was "unacceptable" for the banks to operate at their own monetary policy.

Mr Keating also criticised the banks' lending policies, which he claimed had added 0.75 points to interest rates. The banks had been thrusting money into the hands of borrowers whose only security was property assets, he said. He won support from small business and consumers' bodies which said banks were "ripping off" customers.

Some government critics suggested Mr Keating had attacked the banks to distract attention from the problems of the Australian economy.

Mahathir faces tough test in Malaysian poll

By Lim Siong Hoon in Kuala Lumpur

DR Mahathir Mohamad, the Malaysian prime minister, faces the toughest political test in his decade-long rule when his National Front coalition of ethnic parties goes to the polls within the next few weeks.

Dr Mahathir, who is seeking election for a third term, yesterday announced that parliament will be dissolved today which will pave the way for the country's eighth general election since its 1957 independence from Britain.

Ethiopia and Sudan face food shortages

By Michael Holman, Africa Editor, in London

UP TO 10 million people in Ethiopia and Sudan are threatened by severe food shortages, the British charity Save the Children warned yesterday.

Without "immediate action" by governments and aid agencies, there could be a repeat of the famine of 1984-85 when up to a million people died, said the charity at a London press conference to launch an appeal for a \$2m relief fund.

Two officials who have returned from a visit to the region said that food shortages in Sudan were likely to affect up to 5m people, and estimates of the food shortfall ranged between 300,000 and 1m tonnes.

This year's harvest "is likely to fall totally in many areas", the charity reported. Poor rainfall, the impact of the fuel shortage on commercial agriculture and the country's civil war, meant that without aid there would be "a major famine".

It added that logistical problems "already considerable by any standard, will be exacerbated by the war and the country's economic crisis".

In Ethiopia the combination of drought and civil war could put more than 4m people at risk, with 600,000 tonnes of food needed. Food riots had been reported in parts of Tigray province and northern Wollo, Save the Children said.

than 14 days in the past, polling is likely to be held sooner, in late October or early November.

Dr Mahathir has called the election a year ahead of schedule, in part to capitalise on a healthy economy, low inflation and falling unemployment rates.

Nine peninsular states will hold simultaneous elections for a total of 350 state legislative assembly seats.

In spite of the federalist political structure, all power emanates from the centre, which for the past 33 years has been controlled by Dr

Mahathir's United Malays National Organisation (UMNO).

Malays constitute slightly more than half of the country's 17m population and the 5m Malays in the multi-ethnic Malaysia are the country's first prime minister.

By challenging Dr Mahathir's Malay political leadership, Mr Razaleigh can also undermine the allegiance of UMNO's coalition allies.

The competitiveness of the elections is underlined by the changes in the vote-counting system and allegations of the existence of phantom voters in many marginal and important constituencies.

headed by Mr Razaleigh Hamzah, a former UMNO finance minister. Backing Mr Razaleigh are several former ministers, UMNO leaders and Tunku Abdul Rahman, the country's first prime minister.

By challenging Dr Mahathir's Malay political leadership, Mr Razaleigh can also undermine the allegiance of UMNO's coalition allies.

The competitiveness of the elections is underlined by the changes in the vote-counting system and allegations of the existence of phantom voters in many marginal and important constituencies.



Dr Mahathir, seeking election for third term

Belgium, France act on Rwanda strife

BELGIUM and France said yesterday that they were sending troops and other military aid to Rwanda, where government troops are battling rebels some 70km from the capital, Kigali, Reuters reports from Kigali.

Belgium said troops would leave for the Central African state without delay to protect some 1,600 Belgian citizens caught up in the fighting.

The French Foreign Ministry said it was concerned about ethnic strife in Rwanda, which was invaded on Sunday by Rwandan refugees from Uganda wanting to oust President Juvenal Habyarimana.

Rwanda requested military intervention earlier this week, saying it needed help to repulse the attackers, who have deserted en masse from

the Ugandan army.

France, which has some 700 citizens in the tiny landlocked country, has also agreed to provide weapons and ammunition, diplomats sources said.

In Kampala, fears were expressed that thousands more Rwandans serving in Uganda's National Resistance Army (NRA) would rally to Major General Fred Rwigyema, a Rwandan army officer of Rwandan origin who is leading the invasion.

Military analysts in Kampala said there remained about 7,000 Rwandans in Uganda's army, whose total strength is 80,000.

Uganda has sealed its frontier with Rwanda in an attempt to stop more desertions.

Most of Mr Rwigyema's force is made up of members of Rwanda's traditionally dominant Tutsi tribe, removed from power by the majority Hutu in

a bloody 1989 rebellion.

Western diplomats in Kigali said the Rwandan army appeared to be holding around 1,500-2,000 rebels at the town of Gashyamba as they tried to move south along the main road from Uganda.

Neighbouring Burundi, where the Tutsis are still in power, said it was reinforcing border controls to stop any Rwandan refugees on its territory from joining the rebels.

Burundi's President Major Pierre Buyoya, himself a Tutsi, made it clear that Burundi would not allow its territory to be used for an attack on Rwanda by the rebels.

Wednesday with Rwanda's ambassador in Bujumbura, a Burundi government official said.

Mr Habyarimana arrived back in Kigali on Wednesday evening after cutting short a visit to the United Nations in

New York.

Sources in Rwanda reported many arrests of suspected rebel sympathisers in Kigali, including high-ranking military officers.

About 1,000 soldiers drawn from Uganda's 250,000-strong Rwandan refugee community have defected in recent weeks.

Sources in Kigali said the capital was operating normally although roadblocks had been set up and paramilitary police were out on the streets.

In Kampala, the Rwandese Patriotic Front said it was behind the attack to oust Mr Habyarimana but denied that it was an ethnically based organisation. "It is neither a Hutu-Tutsi conflict, nor a refugee problem. We are opposing a system which is under a small clique that is undemocratic, corrupt and abuses human rights," a spokesman said.

S Koreans increase overseas investment

By John Ridding in Seoul

OVERSEAS direct investment by South Korean companies has increased sharply so far this year, with almost half of the new projects going to south-east Asia, the Bank of Korea said yesterday.

The central bank said the level of overseas investments in the first eight months was \$1.19bn, more than double the figure for the same period last year.

The increase comes in spite of an improvement in several of the factors that have prompted Korean businesses to relocate their production over

the past few years. In particular, the currency, which appreciated had strongly between 1987 and 1990, has depreciated by more than 6 per cent this year.

Wage rises in the manufacturing sector have also averaged less than 10 per cent.

The central bank said, however, that other countries in the region were still much cheaper for labour intensive industries.

In addition, Korean industrialists were still somewhat nervous about the prospects for domestic wages and the indus-

trial relations climate. Finally, many of the new investments had been meant to overcome a perceived threat of protectionism in the US and Europe.

The manufacturing sector accounted for 62 per cent of the new investments.

Labour intensive industries such as textiles, footwear and clothing showed strong increases, with the three sectors accounting for a combined total of \$82m.

About \$115m was invested in overseas petrochemicals projects; \$165m went to the metals and machinery sector.

In terms of location, south-east Asian countries such as Indonesia, Thailand and Malaysia were most popular. The combined value of new investment in Association of South East Asian Nations countries was \$383m, while the number of new projects in the region was 128.

The 72 new projects in North America accounted for \$455m, while the 22 cases in Europe were worth \$37m.

All new investment in the communist bloc went to China, which received \$41m in 27 projects.

Singh postpones Punjab elections

By David Housego in New Delhi

MR V.P. Singh, the Indian prime minister, yesterday obtained from parliament approval for the postponing of state assembly elections in Punjab and for extending direct presidential rule over the state for a further six months.

During a special three-day session of parliament, Mr Singh's administration won the necessary two-thirds majority in the lower and upper houses for amending the constitution to allow for an extension of president's rule.

The vote marked a reversal of the humiliation he received in the lower house on Monday when he failed to muster a simple majority due to tactical abstentions by the Congress Party.

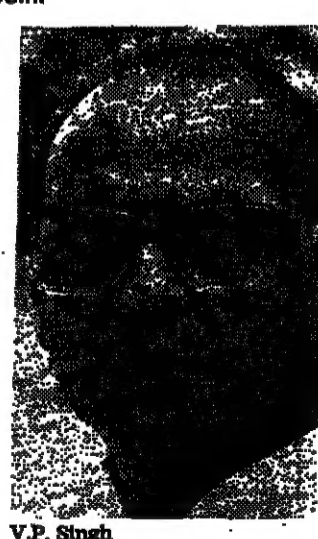
In spite of yesterday's success, Mr Singh nonetheless looked an isolated figure on the front bench during the brief debate. Many politicians think his government is now so fragile that it cannot survive long.

The further extension of president's rule in the Punjab - where the state assembly was dissolved in 1987 - marks the failure of Mr Singh's attempt to initiate a dialogue in the state to advance a political solution.

The Congress, the BJP and the Marxist parties also preferred an extension of direct rule from New Delhi to elections that could have resulted in the rout of their own parties and a victory for the Sikh extremist movement.

All the main parties have argued that free and fair elections were impossible in a situation where Sikh extremists could intimidate voters.

Mr Singh declined to commit himself to any date for holding



V.P. Singh

state assembly elections. But there seems little chance of any significant improvement in the coming six months in the security situation, and the province where 1,500 people have been killed on official figures this year in terrorist related violence.

Sikh politicians have warned the government that the postponing of elections is likely to further alienate public opinion in the province.

India estimates the Gulf crisis will cost its balance of payments current account \$3bn a year, on top of the \$8bn deficit projected for this year, David Housego writes.

But officials said yesterday that India hoped to offset half of this by higher exports (including about \$750m of sales to Japan), a larger food surplus as a result of the good monsoon, and reduced imports (mainly car and electronics components).

ANC favours mixed economy

MR Nelson Mandela's African National Congress (ANC) said yesterday it favoured a mixed economy in a post-apartheid society, aiming for growth through redistribution of resources, Reuters reports from Johannesburg.

It outlined its policy in a document prepared for discussion within the movement, which hopes to form South Africa's first black majority government. Apparently sensitive to worry among investors over

earlier talk of nationalising mines, banks or other strategic industries, it barely mentioned the word. In its only direct reference to such action, it said any public utilities sold under current plans to private state enterprises would be subject to immediate rationalisation.

Policies that boost output, especially in the fields of social infrastructure and basic consumer goods, would generate jobs, satisfy national needs and help spur growth, it said.

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CERTIFICATION TRADE MARK
PURE NEW WOOL

UK NEWS

Peugeot Talbot will shed 350 jobs as sales decline

By John Griffiths

THE FIRST significant casualties of the UK's falling car market emerged yesterday with an announcement by Peugeot Talbot that 350 jobs are to go, mainly at its Ryton assembly plant near Coventry.

The company, which said it expected to achieve the job cuts through natural wastage, blamed high interest rates, inflation and economic uncertainties caused by the Gulf crisis for a fall of nearly 10 per cent in its UK sales this year.

The announcement sent ripples of unease through an industry already deeply worried about the prospect of recession, and which is facing an accelerating decline in the UK new car market in the final quarter of this year.

Truck makers have already been much harder hit, with sales down some 30 per cent and small-scale lay-offs already undertaken.

Peugeot Talbot's move was claimed to be "just the tip of the iceberg for the motor industry" by Mr John Allen, Amalgamated Engineering Union chief negotiator for Peugeot Talbot.

He described the labour cuts as "another devastating blow for the car industry and undoubtedly the result of high interest rates."

Peugeot itself forecast that "other manufacturers will be following suit in the next two or three weeks". However, other main manufacturers last night insisted that they had no plans for similar measures.

The Peugeot action will result in car output by Ryton's 4,500-strong workforce being reduced from November 5 to 2,400 cars a week, down from 2,600 a week.

They also reverse a long period of expansion in the Peugeot Talbot workforce, which has nearly tripled over the past three years as production at Ryton has been expanded.

The cuts were disclosed as statistics released by the Society of Motor Manufacturers and Traders showed a further fall in new car registrations.

The fall of 10.56 per cent on the same month last year, means that total registration for the first nine months of

1990 are down by 11.62 per cent, to 1,688,321.

Peugeot Talbot exports 70 per cent of the 406 models it produces at Ryton to the Continent, mainly France.

However, the French and some other main Continental markets have also begun to turn down.

A serious weakening in Continental markets would be particularly ironic for the main UK car makers, which have begun to expand exports on a significant scale for the first time since the 1970s.

Vauxhall plans to export 80,000 cars by the end of next year. Ford is also gearing up for its first car exports from Dagenham since the late 1970s and Nissan is starting large scale exports from its Sunderland plant.

In spite of this, however, total car production fell by 6.9 per cent in the first eight months of the year.

UK market leader Ford recovered from its poor showing of 20.04 per cent in September of last year to take a 25.63 per cent share last month.

Curriculum chief hits at education standards

By Norma Cohen, Education Correspondent

BRITAIN must raise its educational standards and rebuild confidence in the nation's education system, Mr Duncan Graham, chairman of the National Curriculum Council, the government's chief advisers on the education curriculum, said yesterday.

Speaking at a conference sponsored by the Secondary Heads Association, Mr Graham said, "The simple fact is that whatever its strengths, our system has some glaring weaknesses, compares poorly even where it does best, and has to change."

"Our expectations are low, our standards certainly not too high and national confidence in the service is at a low ebb."

He blamed bureaucrats, vested interests and professional educationalists "who feel threatened and overvalued, and if they are honest, a little guilty."

Mr Graham emphasised that the decline in standards preceded the government's efforts at reform and that the National Curriculum was on its way to correcting those flaws.

Meanwhile, Mr Graham criticised the poor preparation the education system currently provides for the majority of youngsters who do not go on to higher education but instead seek jobs in industry.

These "defenceless" youngsters, he said, received "watered down academic studies" and were thus condemned to failure and frustration.

Meanwhile, Britain was wrongly congratulating itself on how well it does at the upper end of ability among those who do go on to higher education.

He cited the European Community labour market review which showed that France, Belgium, Scotland and even Spain have higher percentages of young people awarded first degrees.

● The Department of Environment yesterday announced grants of £4m to local authorities to help meet repair costs for schools and colleges affected by last winter's storms.

Watchdog warns of water investment cut

By Richard Evans

PLANNED INCREASES in some water company charges well above the rate of inflation might have to be cut over the next two years because of slipping investment programmes, the industry's regulator has warned.

Mr Ian Byatt, director-general of water services, has written to all water companies warning them that lower charges might have to be levied if there is evidence that the proposed capital spending programmes are not being maintained.

The letter, to the managing directors of the 10 former regional water authorities privatised last year and of the 29 statutory water companies, gives the first evidence that Ofwat, the industry's economic regulator, is determined to keep rapidly rising charges down as much as possible.

In the run-up to privatisation, a complex 10-year programme was drafted for all the companies, balancing their capital expenditure needs with their revenue from charges.

Mr Byatt is stressing that this stance must be maintained following indications in some annual reports that capital investment programmes are already behind schedule.

The industry in England and Wales is proposing to spend more than £26bn in the next decade to bring water quality and sewage disposal requirements up to stringent European Community standards. Charges are set to rise steeply. The average rise is 5 percent.

age points above the level of inflation each year for the next ten years. Mr Byatt has told the companies that it is important that Ofwat should monitor how well the individual concerns are progressing with their substantial capital investment programmes.

"The annual reports indicate some slippage and reordering of priorities. We need, therefore, to consider whether those companies are going to experience some delay in achieving their stated objectives," the letter says.

An unspecified number of water companies are now being asked to reassess their probable investment targets and revenue requirements in the short term. Where changes in expenditure are material, Ofwat says they should consider deferring a proportion of their charges over the next one or two years.

It would be unusual for a change in charging policy to be imposed over the next two years because the current arrangement is for adjustments to be made only after five and 10 years.

● Earlier this week Compagnie Générale des Eaux, France's largest water supplier, was cleared by the UK's Department of Trade and Industry to launch a full reorganisation of its two water companies in England.

The offer concerns Lee Valley - already owned by the supplier - which is to merge with Colne Valley and Rickmansworth.

Judge warns banks over drugs money

By Richard Donkin

LONDON'S banking community was warned by a judge in the Old Bailey yesterday, about dealing in drug money after he jailed two financiers for laundering cash in an international operation uncovered by US and UK customs officers.

Mr Asif Banka, 40, a former manager of the corporate unit of the Bank of Credit and Commerce International (BCCI) in Leadenhall Street, London, and Mr Syed Zaidin Ali Akbar, 46, former managing director of Capcom Financial Services, the City futures brokers, were both found guilty of conspiring with two BCCI officials in London to launder drug money.

Mr Akbar, of Basing Hill, Hampstead, north London, was jailed yesterday for 18 months and ordered to pay £50,000 costs.

Both men were arrested two years ago in co-ordinated raids by customs officers in the UK, France and the US. It was the culmination of an undercover operation investigating the laundering of \$32m of cocaine proceeds, mainly in the US.

Mr Robert Mazar, a US customs agent posing as a businessman, seeking to launder cocaine money, gained the confidence of the financiers and, using a hidden microphone, taped conversations with them in which they admitted knowledge of the source of funds he was seeking to "process".

Judge Parker told Mr Banka at the end of the trial: "The banking community in London has got to learn the message that they are not to deal with drug money."

Juries in the two trials heard tapes in which Mr Banka and Mr Akbar - who worked for BCCI before he founded Capcom Financial Services in 1988 - agreed to assist Mr Mazar in laundering drug money.

Mr Banka was said to have accepted about £1m of drug money which was later withdrawn in the Bahamas under the guise of a loan.

Mr Akbar, meanwhile, was said to have undertaken to launder drugs cash into gold on the London Future Market. He dealt with two separate transactions totalling \$250,000 but he was also alleged to have discussed the possibility of laundering up to \$2m a month through Capcom.

The Bank of England said yesterday that UK banks had shown a marked increase in the number of suspicious transactions they had reported to the Home Office Drugs Intelligence Unit in the past three years.

In 1988 there were 455 reports and 1,204 in 1989. More than 2,000 reports are expected by the end of this year.

The Customs and Excise also received new powers this year to seize large amounts of cash being brought into the country at ports and airports and question individuals.

Labour leadership resigned to inquiry on electoral reform

By Ivo Dawson

THE Labour Party leadership was last night resigned to a substantial internal debate on electoral reform for Westminster as campaigners claimed victory in a vote to set up an official study on the issue.

The official outcome of the debate was still unknown last night as tellers postponed releasing the result of a card vote until today.

But both supporters and opponents of the growing electoral reform lobby were convinced the study will go ahead after several leading unions - including the giant Transport and General Workers - supported the move in defiance of the leadership.

Labour's national executive had proposed that the study should examine different electoral systems for the European Parliament, a reformed House

of Lords and the new regional and Scottish assemblies promised by Labour.

But it deliberately stopped short of extending the working party's remit to include the Commons, demanded in a motion put by the Durham constituency party.

Last night, Mr Neil Kinnock, the party leader, appeared to concede defeat, however, saying: "What we are initiating now is a formalised debate about electoral systems, not deciding in favour of PR - far from it."

Party organisers also emphasised that the conclusion of the working party's report would not be published until well after the next general election.

Nevertheless, Labour's new willingness to even consider the issue represents a remarkable shift of position, in sharp

contrast to its outright hostility to PR at the last election.

Opening yesterday's debate, Mr Roy Hattersley, the deputy leader and a fierce opponent of electoral changes, warned that abandoning the present first-past-the-post system would ensure that no party ever won a clear majority in parliament.

"Manifesto promises would be horse-traded away as new alliances were cobbléd together," he warned the conference, insisting that Labour would make "no pacts, no alliances and no deals" before or after the election.

But Mr Gavin Laird, general secretary of the powerful Engineers Union, argued that Labour would get an "even bigger" majority at the next general election if it committed itself to PR.

His failure to reach strike deals with others, in what has been the toughest spending round for years, has increased the likelihood of bids having to be referred to so-called Star Chamber of cabinet ministers to be chaired by Sir Geoffrey Howe.

Mr Lamont will spend much of next week in Bournemouth in "bedroom bilaterals" in hotel rooms with cabinet colleagues. The Star Chamber - the final arbitrator between the Treasury and spending departments - has

Lamont and most departments fail to reach deal on spending targets

Little agreement on government budgets

By Ralph Atkins

THE Treasury's determination to keep a tight grip on public spending has meant ministers from almost all the heavy spending departments will go to the Conservative party conference next week without having settled budgets for next year.

Mr Norman Lamont, chief secretary to the Treasury, has reached agreement with only a handful of smaller departments. Among the heavy spenders, only the Department of Trade and Industry is thought to be close to settling plans for the 1991-92 financial year.

His failure to reach strike deals with others, in what has been the toughest spending round for years, has increased the likelihood of bids having to be referred to so-called Star Chamber of cabinet ministers to be chaired by Sir Geoffrey Howe.

Mr Lamont will spend much of next week in Bournemouth in "bedroom bilaterals" in hotel rooms with cabinet colleagues. The Star Chamber - the final arbitrator between the Treasury and spending departments - has



Lamont and Howe: tough talking in the Star Chamber

not had to meet to settle disputes since 1986.

The most intractable departments to settle budgets include defence, health, social security, employment and education. At transport no deal has been concluded so far but Mr Cecil Parkinson, transport secretary, is expected to agree without resorting to the Star Chamber.

The remaining disputes mean that public spending is likely to exceed the £192.3bn

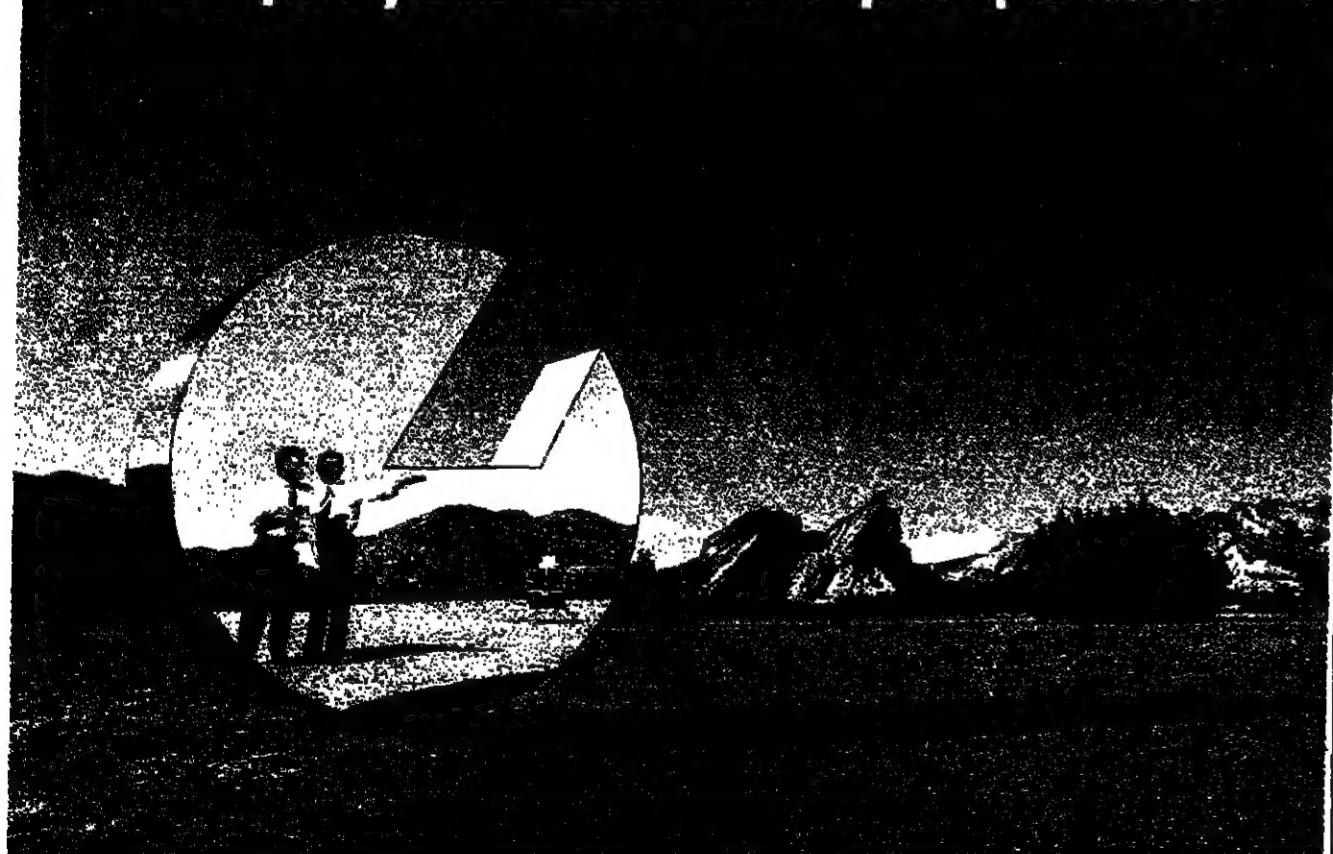
pencil-in for central government spending in 1991-92. Initial bids are thought to have totalled about £15m more than the figure envisaged by the Treasury.

Mr Lamont's job this year has been made more difficult by a higher than expected inflation rate, now at 10.6 per cent, which has eroded growth built into 1990 budgets. Ministers are also aware that 1991-92 could be a general election year.

At social security - the biggest spending department - retirement pensions and other benefits will be uprated in line with September's inflation figure, which could be nearer the peak of the inflationary cycle.

Child benefit - a government allowance paid to mothers with young children - could be frozen for a fourth consecutive year.

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LEGAL NOTICES

JP LIMITED

NOTICE IS HEREBY GIVEN pursuant to section 46(2) of the Insolvency Act 1986, that a meeting of the creditors of JP Limited, a company registered in England, is to be held at Ten Grand House, Grand Street, Leicester on 5 October 1990 at 10.30 am for the purpose of receiving and considering a copy of the report prepared by the administrative receivers under section 46 of the said Act, the meeting may, if it thinks fit, appoint a committee to supervise the functions conferred on creditors' committees by or under the Act.

Creditors are only entitled to vote if: (a) they have delivered to me at Cent. City, Abchurch Lane, 25, London EC4N 3DF, a copy of the report, not later than noon on 5 October 1990, written details of the debts they claim to be due to them from the company and the claim has been duly admitted under the provisions of Rule 5.11 of the Insolvency Rules 1986; and (b) there has been lodged with me any proof which the creditor must be judged of the amount of the claim (including interest) and any other matters.

Dated this 29 day of September 1990
John F. Power
Administrative Receiver

CATALONIA

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16th November 1990

For a full editorial synopsis and advertisement details, please contact:

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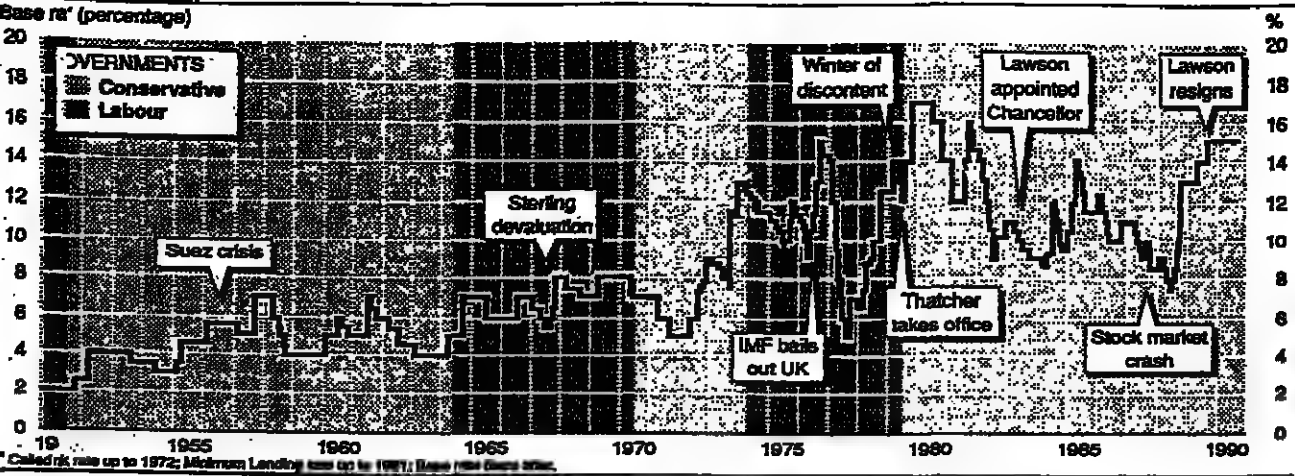
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UK NEWS

'Crisis' interest rates pass year mark

Peter Norman looks at the anniversary of the 15 per cent base rate

Ups and downs of UK interest rates



A YEAR ago today, British bank rates were raised by a full percentage point to a 'crisis' level of 15 per cent. There are still at 15 per cent. If Mr. Major, the UK Chancellor, is to be believed, they will be coming down for some time yet.

We have to go back more than a year to find a similar period of stability in the UK interest rates. Between February 1989 and March 1990, what was then called the bank rate was fixed at eight per cent.

So lengthy periods of unchanged rates were quite common in the preceding two decades. But it is unlikely that the currency and lenders of those days would find very much to commend the present monetary conditions. The long period of interest rate stability in the 1950s and 1960s were at rates of 4 or 6 per cent.

A high level and lack of movement of base rates over the last year has also been remarkable because it followed a period of rapid interest rate adjustment. Last October's increase in base rates was the 11th in 18 months of monetary tightening under Mr. Nigel Lawson, the previous Chancellor, led to an overall doubling of base rates in the period.

Why have interest rates stood at what was generally half a year ago as a 'crisis' level? The answer lies partly in Mr. Lawson's unexpected resignation soon after the base rate rise, which added to downward pressure on sterling, and partly in the resilience of demand in the UK economy in the face of tight money policies.

As time has passed, Mr. Major's judgement has also become an important factor. Although fears of recession appear to be growing daily, Britain has a Chancellor who has vivid memories of how, in the past, policy had been eased too soon in the light of over-optimistic assumptions of how the economy was developing. Mr. Major also knows that a premature cut in rates that necessitated a new rise ahead of the next election would be politically disastrous.

The government has long maintained that a strong sterling is an essential part of its counter-inflationary strategy. A high value pound cheapens imports, holds down prices and, by increasing the competitive pressures on domestic manufacturers, exerts disciplinary pressure on wage claims.

Mr. Lawson's last base rate rise was introduced in response to downward pressure on sterling. Only the previous week, the pound had fallen on bad trade figures. The immediate cause of Mr. Lawson's final base rate rise was a one percentage point rise in West German interest rates that threatened further sterling weakness unless it was matched.

At the time, the base rate increase was controversial. It came just before the Conservative party conference, which made it particularly awkward for Mr. Lawson. Although it came after two consecutive months of £2bn current account balance of payments deficits, there was widespread fear that the economy was entering recession. Mr. John Bingham, director-general of the Confederation of British Industry, for example, said the increase was wholly unnecessary and counter-productive.

Mr. Lawson's resignation on October 26 knocked away the support that the base rate rise had given the pound. Sterling fell sharply and continued to fall until the end of last year, when it hit a record low against the Deutschmark.

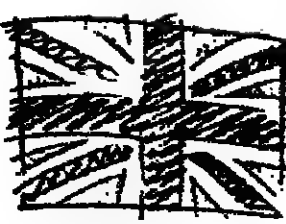
The Bank of England's trade weighted sterling index declined by nearly five per cent in the first two months of Mr. Major's chancellorship. This fall followed a steep decline under Mr. Lawson that left the pound about 12 per cent weaker at the end of last year than at the beginning.

As a result, much of UK industry was able to avoid the intended squeeze. Exports continued to grow strongly, profits on export business were buoyant and wages could be pushed higher in response to employees' demands.

The squeeze also took time to bite at the consumer level as many banks and building societies delayed raising their mortgage rates in response to the base rate rise.

Thus, while Mr. Major last November forecast that 1990 would be "no easy year" with

BRITAIN IN BRIEF



Halifax chief urges law change



Jim Birrell: revisions

The chief executive of Halifax Building Society, the UK's largest lender, yesterday called for substantial revisions to existing legislation to allow activities to widen their field of activities and to put them on a par with banks.

Mr. Birrell, speaking to the Midlands and West Association of Building Societies, said the 1986 Building Societies Act caused delays and irritations which could turn into considerable disadvantages by the mid-1990s.

Mr. Birrell said societies should be able to do anything which they believe is right for their members provided that they have sufficient capital and expertise.

Bristol in the west of England, this morning.

Meanwhile, a man aged 34 was arrested yesterday in Peckham, south London, in connection with the alleged plot.

Two Australian women from Sydney and Kogarah Bay, New South Wales, who had been taken into custody on Wednesday, have now been released.

BSB complaint thrown out

The European Commission has rejected a complaint by British Satellite Broadcasting that the Astra satellite system which transmits rival Sky Television was illegally subsidised by the Luxembourg government.

SES, the company that owns Astra, did receive government backing on a high-risk loan when it began in 1982 but the loan was repaid. The Commission said that even if it had known of the loan guarantee, it would probably not have stopped it.

Meanwhile, Mr. Peter Bell, marketing director of BSB for nearly three years, has resigned after a row over the loss of responsibility for distribution.

Mr. Peter Symes will take over distribution and Mr. Anthony Simmonds-Gooding, BSB chief executive, will take on the marketing role.

Court dismisses appeal by Visa

Traders will soon be allowed to increase prices for customers paying with credit cards after the UK Appeal Court yesterday dismissed Visa International's appeal against a Monopolies and Mergers Commission ruling.

Britain's Department of Trade and Industry said it intends to enforce the recommendations within the next few weeks.

The MMC said in a report last August that a complex monopoly exists in credit card services in the UK, and called for the government to end the "no discrimination clause" in which Visa blocked traders from giving discounts for cash.

Broadcasting plea rejected

Mr. Peter Lilley, Britain's trade and industry secretary, yesterday rejected pleas that broadcasters' relations with independent producers and music publishers should be investigated by the Monopolies and Mergers Commission, the market regulatory body.

Independent television producers have accused the main broadcasting organisations of using their power to hold on to the foreign rights of programmes commissioned initially for the UK market.

Labour MP joins SNP

Mr. Dick Douglas, MP for Dunfermline West, yesterday formally joined the Scottish



Dick Douglas: joined SNP

National party, bringing its tally of MPs to five.

Mr. Douglas, who is 58, resigned the Labour party whip in March this year because he rejected its stand on the community charge, the controversial local levy for services. The party decided to acquiesce in the charge rather than organise a mass campaign of non-payment, as the SNP is doing.

Scottish site for £4m factory

Alps Electric, a Japanese manufacturer of electronic components, is setting up a £4m plant at Arbroath, Tayside, East Scotland, which will employ 230 people.

The plant, which is to be located in an enterprise zone, will make tuners for television and video cassette recorders. It will be the company's second plant in the UK, the other being at Milton Keynes, Buckinghamshire.

New radio licences plan

Britain's Radio Authority yesterday announced plans to offer up to 30 new local commercial radio licences next year.

The areas chosen from more than 900 "letters of intent" submitted by prospective applicants concentrate on areas not well covered by existing independent commercial radio stations.

Reckitt to axe 150 Hull jobs

Reckitt & Colman, the household products, food and drugs group, yesterday announced 150 white-collar redundancies at its Hull operations and the merger of two of its four operating divisions based there.

Receiverships double

The number of UK receiverships in the first nine months of the year was more than double the level in the same period in 1989, according to figures released yesterday by KPMG Peat Marwick McLintock, the accountancy firm.

BR fare rise

Passengers on British Rail and London Transport face a third consecutive year of heavy fare increases in January. InterCity and Network SouthEast fares will rise by 9.5 per cent while bus and London Underground fares go up by 9.7 per cent.

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MANAGEMENT

Transforming corporate culture

Why GE encourages lèse majesté

The US conglomerate's chairman is urging his managers to express candid and honest opinions in order to instil in them the attitudes of a small, fast-moving entrepreneurial business. Martin Dickson reports

Can this be for real? Some junior executive has just had the temerity to give Jack Welch a piece of advice. And as chairman of General Electric, Welch is one of the most powerful and influential businessmen in the United States.

The advice was pretty cheeky, too. It was delivered after this junior executive went on one of the courses Welch addresses at GE's campus-like management training school in Crotonville, New York state. Welch helicopters in every few weeks from his headquarters in nearby Connecticut to give the troops his vision of the company's future.

Afterwards, the students fill in a questionnaire on their boss's performance. Though enthusing about Welch's message, our junior executive went on to advise his chairman that he could save company money if only he cared to walk the 200 yards from his helicopter to the centre, rather than tying up a chauffeur-driven car.

Although perhaps delivered tongue-in-cheek, it is the kind of lèse majesté which would have many company chairmen shaking with anger. But Welch seems to be delighted, for it is just this kind of constructive criticism that he is trying to encourage at GE. The aim, he says, is to create an atmosphere where "it's acceptable to speak out, where telling the truth is rewarded and where bosses who yell at people for speaking up are not".

The incident underlines a remarkable experiment in management techniques taking place at GE, one of the biggest and most diversified manufacturing companies in the US, with interests ranging from aircraft engine manufacturing to financial services.

Welch's goal is extremely ambitious: to inject right down the line the attitudes of a small, fast-moving entrepreneurial business and continuously to improve GE's productivity, so that it remains competitive in the intense global market place of the 1990s.

This means a frontal assault on bureaucracy, a vice to which Americans seem particularly prone. But it goes far beyond this in seeking much greater involvement of the group's workforce and customer care in the way the business is run. Welch calls this process "work-out".

The experiment has a wider importance, for GE - founded over 100 years ago by Thomas Edison - has a long tradition

of leading the US in new management techniques. In the 1950s, for example, it introduced the idea of separate profit centres, while in the 1960s and 1970s it set a trend (now reversed) of hiring legions of strategic planners.

Work-out is already having an influence elsewhere. For example, in the UK, British Petroleum is using elements of the scheme in its great management restructuring. The company has already undergone one revolution, which radically changed its shape, since Welch took over as chief executive in 1980. He was a surprise choice to head the group, since he was only in his mid-40s and had a reputation for unorthodox ideas, albeit some which had proved very successful in building up GE's plastics business.

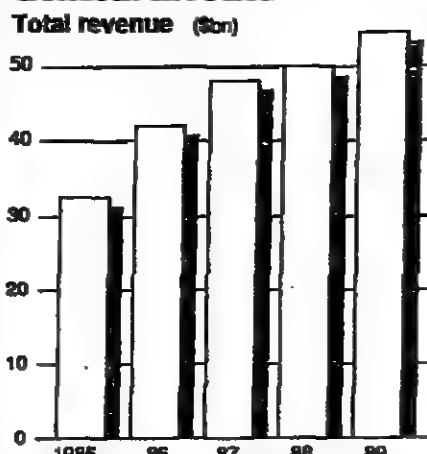
The maverick image was reinforced as he set about a wholesale reorganisation of a company which critics suggested did not need mending. He got rid of management layers. He scrapped his predecessor's division of the group into 350 strategic units. He sold businesses representing 35 per cent of GE's sales - ranging from the manufacture of semi-conductors, through houseware to mining - and cut more than 100,000 jobs through disposals, attrition and lay-offs.

But he also bought companies, notably RCA, bringing with it new defence electronics businesses and the NBC television network. He bought Kidder Peabody, the Wall Street securities house, a takeover which went sour almost immediately when one of its star deal-makers was accused of insider trading and the firm began to hemorrhage talent.

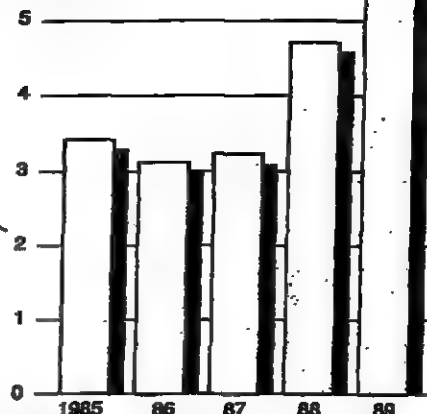
The aim of this controversial whirl of activity, says Welch, was to make sure that all GE's businesses were global in scope and either first or second in their sectors. "When you hit a down draught and you're number four in a market, you get pneumonia," he says. "If you're one or two you get a little sniffle."

Being first or second in a market fulfils one of Welch's criteria for creating the "ultimate" strong company. The

General Electric



Earnings before tax (\$bn)



Jack Welch

other is to "integrate diversity" - in other words, get ideas and people flowing across corporate boundaries, making the whole a great deal more than the sum of the parts.

"An integrated, diversified company can be a powerhouse, should be a powerhouse, if it is number one or two in its businesses and the integration is real," he says, arguing that such a group offers investors less risk and greater consistency than single sector ones, since cyclical upturns in one part will offset downturns elsewhere.

Parts of this sound rather like a replay of the apocryphal put forward in the 1950s and 1960s to justify the creation of conglomerates, many of which were broken up again in the 1980s when fashion changed.

But Welch argues that a crucial difference between GE and a conglomerate is the degree of cross-fertilisation taking place between the group's divisions. Certainly, the company is putting immense effort into removing barriers both vertically - up and down the line - and horizontally - across divisions.

Integration involves exchanges of both people and ideas. Top executives are moved freely from one GE business to another where Welch thinks their particular

mix of talents and experience will be useful. For example, the former head of GE Capital, the financial arm, was put in charge of NBC, while a new head for GE turbines has been plucked out of the aircraft engines division. Welch hopes that seven or so engineers will be "stolen" from the aircraft side to give turbines a boost.

Exchanges of ideas take place at many levels and with varying degrees of formality. The most senior forum is the corporate executive council, which brings together the heads of GE's 14 businesses and a few top staff each quarter to swap views. Each individual business has its own mini-version of this institution. Meanwhile, some 5,000 employees at a year attend sessions at the Crotonville Management Development Institute - a long-time GE feature which had a lot of money spent on it in the 1980s. There they are exposed to new ideas in best business practices.

But exchanging information extends far beyond classroom theories. For example, scientists at the company's large research centre at Schenectady, in New York state, are encouraged to act like entrepreneurs, coming up with ideas and hawking them round the group, rather than waiting for product managers to come to them with ideas. The result, say analysts, is a much better

record in transferring technology to the market place than have most other US companies. Welch says his aim is to create a "boundaryless company", which he defines as meaning that "between functions, between labour and management, between customers and GE, the lines are blurred. We become one. We share."

This sounds horribly vague and well-meaning - the kind of remark that might come better from a minor Oriental mystic than a high priest of capitalism. Yet the purpose is extremely down-to-earth: to improve productivity by getting everyone in the company - as well as customers - contributing ideas on the way work is organised.

Welch's key tool in this drive is the "work-out" process. The idea was born several years ago at Crotonville, after a number of junior executives had stood up in Welch's sessions and criticised aspects of their businesses. But he thought: "Why can't we recreate these sessions in each business, where the person standing at the front of the room can do something about it?"

Work-out involves a business leader talking to a small group of employees, drawn from all levels, and giving them his or her vision. The employees go away, think about the ideas and about what bothers them about their jobs. They then

reconvene and discuss the issues. The manager can accept or reject the ideas for improvements thrown up in the discussion, or can say he will think about them. But if his initial reply is "maybe" he must report back to the group with a final decision within 30 days.

Cynics might argue that variations on this kind of operation have been tried at other western companies but almost always end in disillusion when management fails to deliver on its promises, or when staff become frightened of criticising their bosses.

But the GE operation is remarkable in that it is being applied rigorously across the company, and from top to bottom, and it is structured so that managers cannot get away with doing nothing.

This is because the company has hired independent experts from several universities to act as "facilitators" - monitors who sit in on the sessions, make sure managers do not bully those who speak their minds, and check that they are sticking to their promises.

Work-out has only been operating since early last year and Welch says that so far about 90 per cent of the recommendations coming out of the sessions have been acted on. This is because initially they have been very simple -

amounting to getting rid of much of the unnecessary bureaucracy and administrative trivia which had piled up over 100 years.

At first ideas came hesitantly, but Welch says that once people see their suggestions being acted on, the trickle turns into a flood. "It gives people self-confidence. They think: 'Look, what I say is important. People act, people respond to it.'"

Work-out is now entering a more difficult area - improving the production process - but Welch says it is already producing results.

"Do you realise how silly it is for managers in an office to be fixing some of these flow things that people deal with every day?" he asks, adding that an ergonomics work-out at a plant in Louisville, Kentucky, "made more progress than paying consultants for a decade, because the people on that floor knew it [the job] was breaking their backs more than those people coming in with pads of paper."

But these changes - which could yet lose momentum over the long term - have some powerful implications for traditional corporate roles, blurring the distinction between manager and managed, executive and blue-collar worker, and GE and its customers.

It demands more from workers, who are given greater responsibility, and much, much more from managers, who must still lead, yet be flexible and willing to accept criticism. That in turn requires a particular combination of self-confidence and sensitivity.

Welch says GE has had to remove some business leaders because they were not "candid" and couldn't face reality, he adds that "we will undoubtedly have to lose some key managers in the 1990s who won't embrace the concept of 'boundaryless', who won't be self-confident and simple."

Welch is not without critics. Some have accused him of merely replacing one hotchpotch of companies with another. Some argue that his "delaying" of the corporate bureaucracy in the 1980s left middle managers too stressed

and too overworked some complain that his job is, and the ejection of managers who cannot adapt to the demanding new regime, have hit company morale. Not for nothing has he been called "Neutron Jack".

And while "work-out" has been widely welcomed as an imaginative move by detractors argue that it would have been better if such a programme had been introduced several years earlier. Other words, Welch should have set about the group's human, or "software" problems at the same time as removing its "hardware", rather than leaving the job until later.

Still, the acid test of any management theory is to be whether it actually produces results and in GE's case has done so impressively, in the company recording double digit earnings growth in the past 15 quarters.

With the US teetering towards a recession, the wake of the Gulf crisis analysts expect a substantial slowdown in that pace next year, and point in particular to the slump in US defence spending and the weakness of financial services sector, where GE Capital is one of the largest players.

Nevertheless, the company seems to be in a much better position to withstand a economic downturn than it was in the 1981-82 recession.

Whether GE's latest management techniques can be transferred to other companies is debatable, for much the drive behind "work-out" comes from the personality of Welch himself, who has shown a remarkable ability to act his management theories. It is the company's changing edicts, particularly his new emphasis on the human dimension.

The only child of a Massachusetts railway conductor, he is a slim man of middle age with bright, piercing eyes and immense bubbling enthusiasm. He is given to tapping out lightly on the arm to emphasise a point and to rack of rhetorical questions. "How is our integration?" he asks. "It's a lot more real than ever been. Is it the ultimate? No. Are we working on it every day? Yes."

At times like these he sounds a little like a hot-potter. Yet he is anxious to stress that he has never found the corporate holy grail. "We are on a crusade," he says. "But we are only just beginning. We are two to three years into it. This is a long journey. We don't have simple answers."

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London, 3 & 4 December 1990

The Financial Times eleventh conference on World Telecommunications will bring together a most distinguished panel of speakers to look at the gathering pace of deregulation in the world's telecoms markets, how this is opening up new opportunities for expansion.

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Mr William T Esrey
United Telecommunications Inc.

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Monash University, Australia

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INTELSAT

REVIEW OF TELECOMMUNICATIONS POLICY IN THE UK

London, 5 December 1990

Six years after privatising its state-owned telephone company, Britain is gearing up for a second phase of telecommunications liberalisation. This conference, timed in the midst of the duopoly review, will include presentations by:

Mr Douglas Hogg QC, MP
Department of Trade and Industry

Mr Gordon Owen
Mercury Communications Limited

Mr Malcolm Argent CBE
British Telecommunications plc

Mr John Holt
British Aerospace (Space Systems) Limited

Mr Peter Borer
BR Telecommunications

Mr Stephen E Andrews
US WEST International, Inc.

A limited amount of exhibition space is available at the conference.

WORLD TELECOMMUNICATIONS

REVIEW OF TELECOMMUNICATIONS POLICY IN THE UK

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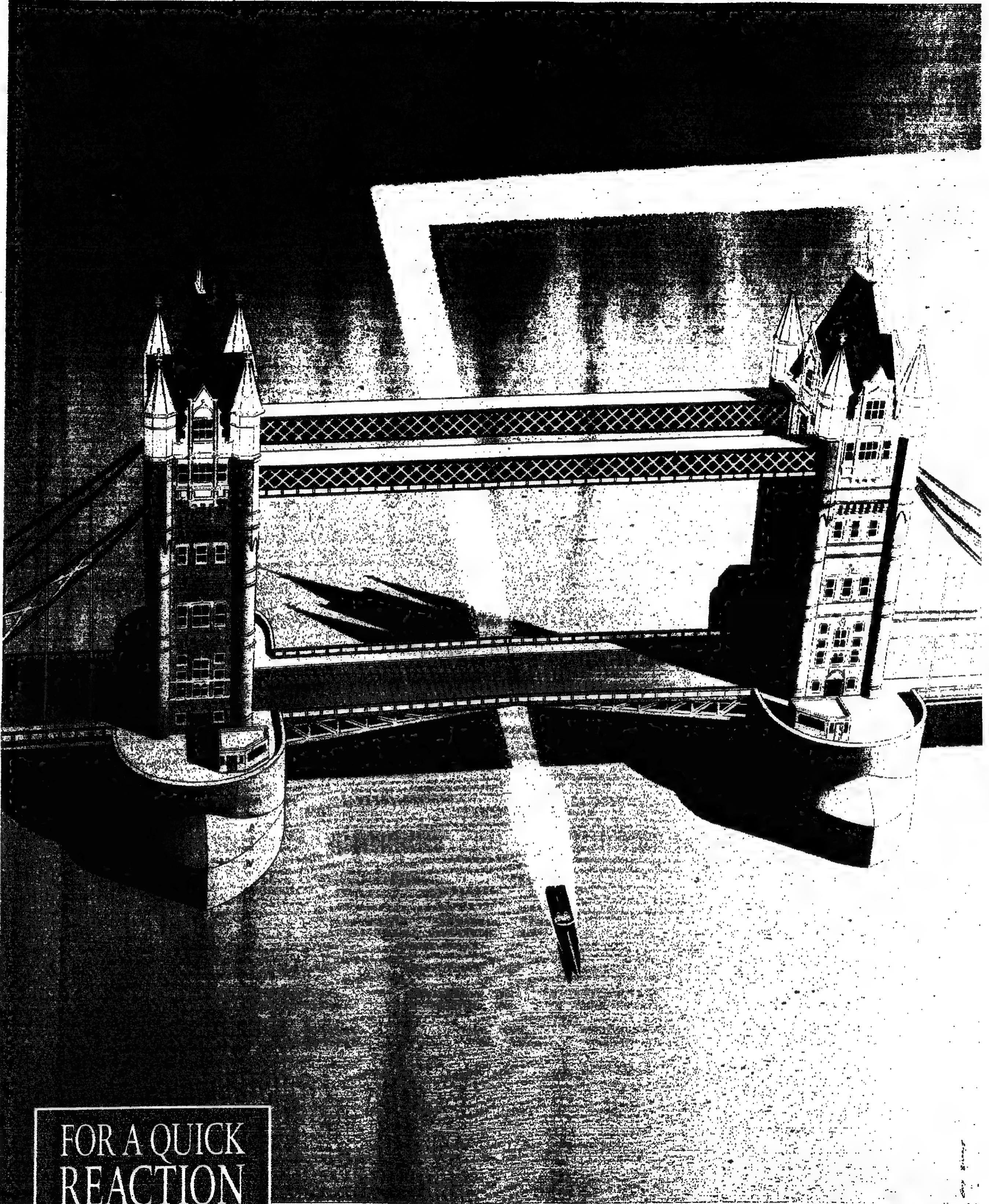
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TECHNOLOGY

Chatterji goes to the board

For the second time this year a UK-based multinational company has promoted an Indian-educated technologist to its main board as research and technical director. The appointment of Deb Chatterji at the BOC Group this week follows that of Ashok Ganguly at Unilever in May.

Chatterji says the two men come from similar Bengali backgrounds. Like many of the best Indian university graduates, they went on to do a PhD in the US (Ganguly at the University of Illinois and Chatterji at Purdue).

But Ganguly has spent most of his working life back in India with Hindustan Lever - as chairman from 1980 until this year - while Chatterji stayed in the US, spending 10 years in R&D with General Electric (GE) before joining BOC in 1985.

Although BOC is a UK-based company, its central research facility is in the US, at Murray Hill, New Jersey. It was inherited from Airco, the US industrial gases company which BOC took over in 1979.

BOC has tripled its spending on research, development and engineering during the seven years since Chatterji joined the company. It now spends £70m a year on these activities and employs 1,500 scientists and technicians.

"Technology has been a key factor in BOC's commercial success during the 1980s and Deb has played a major role in this effort," says Richard Giordano, BOC chief executive.

The next step in that expansion will be to set up research and technology centres in the UK and Japan, to back up the UK facility, BOC used to have a UK research centre in Morden, South of London, but this was closed down in the mid 1970s.

The new UK centre will focus initially on production technology for BOC's industrial gases businesses. It will start with a staffing of 30 to 35 scientists and engineers.

Chatterji says the company will decide soon whether to put the UK centre on a university campus or on one of BOC's industrial sites.

Clive Cookson

Can Siemens Nixdorf Information Systems, the German information technology company formed this week from Siemens' data and information systems division and the ailing Nixdorf Computer, become a focal point for Europe's indigenous computer manufacturing industry and halt its seemingly inexorable decline?

The new company, with joint worldwide sales in 1989 of DM11.5bn (£4bn), is Europe's largest computer manufacturer, ahead of France's Bull (DM9.6bn excluding Zenith) and Italy's Olivetti (DM8.9bn), but behind International Business Machines, Digital Equipment, Unisys and Hewlett Packard of the US and Fujitsu, NEC and Hitachi of Japan.

Hans-Dieter Wiedig, chairman and chief executive of SNI, is therefore charged with a tough task. To challenge the Americans and the Japanese he will have to overcome a set of disadvantages that have so far thwarted other European computer manufacturers in their search for international competitiveness.

They are three in number: European manufacturers have been confined largely to their national markets and have failed to achieve adequate economies of scale; they have failed to innovate effectively; and they have been perennially short of resources to underwrite the heavy R&D costs that are vital to a leadership position in computer manufacture.

Wiedig has been with Siemens for most of his professional life, holding posts including executive board director for Siemens Greece and head of business administration for Siemens data systems division. He was appointed group president of Siemens data and information systems division in 1988. Now his skills as a computer industry statesman will be tested to the full in the bloody cockpit of the European industry. How is he approaching his task?

First, the traditional insularity that dogs European manufacturers and contains them within their home markets. SNI plans to market a full range of computers, from supercomputers to laptops, but the lion's share of its revenues, to judge from last year's sales figures, will come from western Europe and, in particular, West Germany. Some 94 per cent of its revenues come from western Europe and 60 per cent from West Germany.

There should be powerful synergy in the new relationship between Siemens and Nixdorf. Siemens has made great strides to become a force in the computer industry in the past few years. It was number one in Europe before the takeover, but its strength is as a systems - that is, computer hardware - supplier.

In the modern data processing industry, that is becoming an outdated approach. Customers today demand that their computer suppliers provide solutions to their data processing problems through a combination of hardware and software. That has been the source of Nixdorf's strength in Germany and one that it has been able to transfer successfully to its subsidiaries overseas.

Alan Cane asks whether Siemens Nixdorf can make an impact on Europe's computer industry

Up against the odds



Hans-Dieter Wiedig, SNI chairman and chief executive

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While Nixdorf as a whole ran up losses of DM1.06bn last year, the UK subsidiary, for example, grew strongly and

traded profitably. SNI's aim is to grow total revenues from DM11.5bn in 1989 to DM13bn in 1990-91 with international business contributing about 40 per cent of the total. Nixdorf's marketing network and skills in applications software are therefore essential to complement Siemens' capabilities as a systems manufacturer.

Wiedig believes, however, that there will continue to be consolidation in Europe, leaving perhaps only one large European-owned computer manufacturer by the turn of the century. Europe's computer companies discuss continually possibilities of mergers, alliances and partnerships through the Information Technology Round Table, an exclusive "club" for leading electronics firms.

Wiedig said in Frankfurt this week that there had been a number of approaches from potential partners. He is, however, putting the successful integration of Nixdorf and Siemens' data divisions before any mergers.

It was not a commitment about the possibility of a deal with Bull or Olivetti - the only two large, European-owned computer manufacturers now that ICL of the UK is to be sold to Fujitsu, saying that three years in the computer business was a long time. And he denied reports that Fujitsu had an interest in taking a share in Siemens. The reports had been based on a misunderstanding, he said.

If SNI is to grow significantly outside Europe it will have to make its mark in the large, but slowly growing, US market. Wiedig said that if the company were to grow at an acceptable speed in the US, it would have to find a "strong" partner, that is, not one hampered by heavy losses. NCR of the US, which had recently revamped its entire product line to run on Intel microprocessors, would not be an ideal partner, he said.

It seems the company's contribution to innovation will be chiefly in software. SNI will operate the dual architecture that is becoming common among mainframe suppliers. Large systems are based on proprietary designs and operating systems while medium-sized and small systems will be based on standard microprocessors and a derivation of the Unix operating system. Both Siemens and Nixdorf were founding members of the Open Software Foundation, committed to developing a version of Unix based on a design from IBM.

SNI will have an arm's-length relationship with its parent, Siemens, which owns 75 per cent of its stock, but it will benefit from the range of electronics and electrical engineering products that Siemens provides including its range of semiconductors. "We can jointly define interfaces, develop joint solutions and even approach customers jointly," Wiedig said.

The Siemens connection will also provide the cash resources that have often proved a stumbling block for other European computer makers. The industry remains turbulent and there will be more restructuring. There is no guarantee of international success for SNI. But among the indigent Europeans, it seems to have the best chance.

Seeing through the forgeries

THE forgery of bank notes is becoming an increasingly complex problem for the world's financial community as more sophisticated copying devices appear on the market.

The answer could be an optical security device developed by CSIRO, the Australian research organisation.

CSIRO was responsible for developing the optical image on Australia's latest \$10 bill. Now it has developed a more sophisticated - and therefore more difficult to forge - technology called Catpax 2.

Catpax 2 produces a pictorial optical foil, about twice the size of the holograms which appear on today's credit cards, but containing 10,000m bytes of data. The picture is produced using an electron beam, the same technique used to produce today's most sophisticated microchips. Holograms are produced by laser beam.

As well as being more detailed than holographic images, the Catpax 2 technique produces an image which does not blur when viewed from different angles. Instead it changes from a positive to a negative image. It can also be used on bank notes as well as plastic cards.

Two ships are better than one

THE idea of splitting a ship longitudinally to make it narrow enough to squeeze through restricted canal locks, and later joining the two sections together again to rebuild a complete ship, may seem fanciful, writes Robin Burton.

Especially if in the meantime each of the two halves have to travel backwards to avoid turning in large circles. But a Chichester firm, Maritime Data International, has produced a detailed design for just such a vessel. The purpose of the "split ship, seagoing canal vessel" is to enable a ship with a maximum cargo carrying capacity of 1,240 tonnes to use British inland waterways.

It would do this by reducing the overall width of the ship from 12.4m to an acceptable 6.2m. The tendency to travel in circles if driven ahead in split mode would be caused by the asymmetrical shape of each half-ship.

Once in open water the two half-ships would be carefully positioned and then secured



WORTH WATCHING Della Bradshaw

by way of a patented hydraulic mechanism.

Computer wears its clothing well

INDUSTRIAL clothing has never really hit the fashion headlines, but a Warrington-based company has installed a computer system to enable it to complete designs from concept to final form in hours rather than weeks.

The computer system, developed by Microdynamics, of Dallas, and installed by Apparelmaster Design, uses either scanning equipment or high-quality video pictures to get the information on the design of the clothing and the fabric into the system. The two can then be matched together using special software which puts in the creases, shadows and drapes, as would appear when the garment was worn. The design can then be printed out in colour on film or can be transmitted using special software over a communications line to other company offices worldwide.

Shorter life for radioactive waste

DISPOSAL of radioactive waste is an emotive issue, especially when it has to be transported by road.

But the Los Alamos National Laboratory in New Mexico has developed a way of rendering radioactive waste harmless or of reducing its toxicity so that it only needs to be stored for a few hundred years instead of tens of thousands of years.

The process, which works on concentrated nuclear waste resulting from the production of plutonium, is based on the generation of very large numbers of neutrons.

These are absorbed by the radioactive waste, rendering them stable (non-radioactive) or less dangerous than previously. The success of the technique, says Los Alamos, is because the more neutrons there are the more reactions can take place.

The technology could be used to treat stockpiled radioactive waste on site - without having to ship it around the country for treatment.

Going with the flow

JUST-in-time (JIT) manufacturing is usually associated with Japanese manufacturers and endless grocery production lines. But in Scotland the local whisky makers are also getting in on the act.

Targeted specifically at Scotland's native drink makers is a bottling machine which enables them to transfer between different bottle shapes and sizes in a matter of minutes. The bottling machines enable whisky makers to change bottle shapes economically every half hour, or so.

The Concept 2000 rotary liquid filling machine, from Pneumatic Scale, of Hemel Hempstead, relies on sets of filling valves that can be easily interchanged. The valves control the amount of liquid which goes into the bottle and the speed with which it flows.

Microwave oven stirs it up

TAKING the guesswork out of cooking is the aim of the latest Japanese microwave oven. Instead of the cook making the guesses, the oven does it instead.

The oven, developed by Sharp, uses "fuzzy logic" - a technology that combines vague human responses with the strict binary logic of computing.

In the case of the microwave oven, the fuzzy logic control system knows when, and for how long, to stir, mash or knead the food in the oven. And it inserts the appropriate utensils to carry out this task.

Contact: CSIRO, Australia, 61 646 2777. Marine Data: UK, 0243 766299. Microdynamics: US, 214 363 1170. UK, 081 227 8025. Apparelmaster: UK, 0942 725711. Los Alamos: US, 805 687 5551. Pneumatic Scale: UK, 0442 512571. Sharp: Japan, 55 364 8225.

LYONNAISE DES EAUX DUMEZ

A "GREEN" MULTINATIONAL

At the Extraordinary Joint Shareholders' Meeting held by Lyonnaise des Eaux and Dumez on September 24, 1990, the merger of the two corporations was approved.

This merger will result in the creation of a major European services corporation operating under the name Lyonnaise des Eaux - Dumez.

The new entity will be concerned primarily with improving the quality of life through "green" operations dealing with environmental activities worldwide.

With a workforce of 110,000, Lyonnaise des Eaux - Dumez will register a turnover for 1990 of 80 billion French francs, with 50% of this figure accounted for outside France; 1990's cash flow represents approximately 4 billion French francs.

The corporation's operations cover water resources and environmental management (32%), construction and civil engineering (48%), and distribution of electrical and heating equipment (20%).

Working in cooperation with local and national government agencies, the new corporation is ideally positioned to offer integrated solutions to the increasingly complex engineering and environmental problems.

Client concerns are shifting increasingly towards overall solutions and away from the hitherto separate approach to services such as water treatment and distribution, urban sanitation, energy management, civil engineering and major infrastructure projects.

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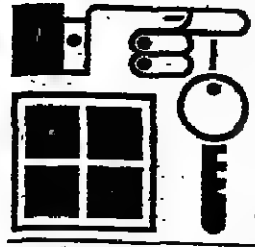
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PROPERTY IN SCOTLAND

Friday October 5 1990



The late 1980s boom in Scottish property has come to a pause, halted by conflicting signals about the economy. Developers' fortunes and feelings about the future are mixed. There is also the changing role of government agencies to contend with, as James Buxton outlines

Development conflicts

THE RIPLE effect, by which economic forces originating in the south of England move north like ripples across a pond, is producing confusing signals in Scotland.

On the one hand, there are few obvious signs of serious economic downturn, although many businesspeople are pessimistic about the medium term economic future. The latest survey of business opinion in Scotland showed retailers and manufacturers reporting increased sales and orders. Unemployment at eight per cent is, by a whisker, still falling.

However, the fact that the commercial property market in the south of England turned alarmingly sour early in the year has stripped away some of the underpinning of a strong property boom in Scotland, which naturally began later than that of the south.

That crisis, as well as creating financial difficulties for many property developers, has caused a virtual drying up of the institutional property investment market. With institutions waiting to see what happens to values and rents, instead of investing, the fundamental basis of property development, a developer's confidence that he can eventually dispose of his property, has almost gone.

"Without a strong funding market, it's difficult to trade properties and get new projects underway," explains Mr Roderick Miller of the chartered surveyors Drivers Jonas in Glasgow.

The rise in property yields is affecting the whole of the UK, but the letting market is much stronger in Scotland and the rest of northern Britain, than in the south.

Many of the underlying forces which create demand for new and better property are still there. The Scottish economy is slowing down less quickly than that of the UK as a whole (though few doubt that the downturn will eventually reach the Central Belt), and the recent perception of Scotland as a good place to move one's business or home may become a permanent legacy.

The effect of these confused ripples is paradoxical. In Edinburgh there is considerable inherent demand for high quality office space with large floorplates and space for all the dictating of cables and air conditioning that a modern office requires. There is a vacancy rate of only two per cent.



St Vincent Street, at the centre of Glasgow's business district

Yet one very large project to satisfy a good part of that demand - the scheme for office developments and a conference centre off Lothian Road - looks becalmed, partly because Greycourt, one of the two main members of the development consortium, pulled out in the summer and the other, Sheraton Securities, has had a financial crisis.

The Scottish Development Agency and the district council are trying to ensure that the project goes ahead, even if later than originally intended. "We're talking about the future of Edinburgh here, not just the next two years," says Dr Des Bonnar, head of the SDA's Edinburgh office. But the property market does not think like that.

In Glasgow, traditionally a steadier and larger market, things are healthier. Much new office property is becoming available in the next year or so, and much is pre-let. Rents are still rising. But although some new developments have gone ahead this year, others are stalled. Some observers believe there will be a serious shortage of new office space becoming available in 1992.

Glasgow now has the office accommodation to meet the needs of the growing number of organisations contemplating moving part of their operations to the city. In the past three years about 15 companies and organisations have relocated or decided to relocate to Glasgow, promising 7,000 jobs. Edinburgh missed out because it was too slow to get going, and because of the unusual complexities of development there.

Mr Andy Irvine of Jones Lang Wootton in Edinburgh believes the property market in the UK may be close to bottoming out, although recovery has been delayed by the Gulf crisis.

The UK property boom of the 1980s came late to Scotland. It was only in 1987 or 1988 that the commercial property markets in the main cities began to come to life, and the rise in house prices and in the value of rural property began.

Throughout the property scene, whether in large developments or residential housing, the common theme is the spread of activity from the south. Although there are a number of Scottish property developers, such as Scottish & Metropolitan, Murray International and DCI, many of the principal schemes in Scotland are being pushed through by English-based companies.

property than in England. The SDA has for years been almost the only force in industrial property and has also had an important role in stimulating urban renewal; also, the five new towns are disproportionately important honeypots of growth.

That is changing. Earlier this year the SDA sold about 80 per cent of its portfolio of industrial property. The government wanted it to make room for the private sector, and the SDA felt that owning large industrial estates often had no development function.

But the sale of the bulk of the SDA's portfolio for £120m to two companies may not initially stimulate new activity. Rents are often too low to make new development economic and there is some vacant space. The SDA has kept about 20 per cent of its portfolio and may continue to offer property at lower rents than the private sector would.

Next April the SDA itself is to re-emerge as Scottish Enterprise, merging with the Training Agency in Scotland. The core body, while providing a strategic lead in other sectors, will operate through 12 local enterprise companies in which private sector people will play the leading role.

To some extent, the private sector-led property boom of recent years is a result of the SDA's long-term pump-priming in urban areas, and suggests that the agency has completed its task. Where it has not done so many of its functions will devolve to the LECs, and private sector developers will be expected to become more active in zones where in the past they have needed encouragement from the SDA.

The act creating Scottish Enterprise also provided for the winding up over the next ten years of the development corporations which run the new towns. The government thinks the corporations have largely done their jobs, or have nearly done so. This is a sign accepted in the development corporations themselves, which believe their special powers are still needed.

Both here, and in the Scottish Enterprise concept, the private sector will have to demonstrate that it is worthy of the government's faith.

EDINBURGH

Pressures on projects

There is only one real question waiting to be answered in this property market: when and in what form will the Lothian Road scheme go ahead?

This is a project to build a 1,200 seat conference centre and develop a large amount of office space on a site off Lothian Road to the south-west of the city centre. It is vital to Edinburgh's future, partly because of the economic benefits from the conference centre, and partly because it represents a badly needed expansion of the city's office district.

Until early this year the combined developments appeared to be moving ahead cautiously but steadily. But the collapse of the property market in the south caused one of the two developers, Greycourt, to pull out, while the other, Sheraton Securities, recently had to be refinanced.

As doubts about the project swelled it looked very much as if Edinburgh had missed the boat yet again.

A wave of new development began three years ago as economic spirits rose and the council at last released some of its land for development. The most significant project was by Scottish & Metropolitan to build a financial centre on the notorious "hole in the ground" site in Castle Terrace. That development should be ready in 12 months' time with 185,000 sq ft of office space, as well as restaurants and a theatre. About half the office space is let.

But as life assurance companies, fund managers and banks expand, along with the solicitors and accountants who serve them, demand for top quality office accommodation has outrun the sites available.

Over the past year or so almost all prime space likely to be available for the next three years has been snapped up. Some businesses are firing off the elegant but unwieldy Georgian properties in Charlotte Square and moving out: Martin Currie, the fund manager, is going to Castle Terrace. But businesses that require a lot of space are finding it impossible to find somewhere to move to.

As a result, rents in the centre have been forced up. Best office accommodation in the centre, which might have been available for £7 per sq ft in 1985 is now hitting £25 per sq ft, and the rise of rents in Edinburgh between 1985 and 1989 was an inflation adjusted 36.97 per cent, the highest of any major European city, according to Hillier Parker.

The pressure, however, is less acute for smaller organisations seeking less prestigious accommodation and in this sector demand weakened earlier this year, says Mr John Clement of Hillier Parker.

As well the Lothian Road conference centre project there is the well advanced scheme to redevelop the Port Hamilton area in the next block to the south. Fort Sellar Morris and Berisford Properties have detailed planning consent for 450,000 sq ft of offices in nine buildings, plus 700 apartments. They expect to begin the first building within weeks and are speaking to potential tenants.

Edinburgh has mullered over a conference centre for years. Dedicated conference centres need public sector subsidies to cover running costs, but for a long time the government refused to co-operate. Eventually it allowed the Scottish Development Agency to put in £6.75m for site preparation while the district council agreed to release its land on the 6.5 acre site for office development, intending to subsidise the conference centre from its rents revenues.

But that meant a much larger and more complex development, entailing more partners and more scope for delay.

Continued on Page 2

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Private sector takes over

performed since the 1940s. In addition, few industrial estates in Scotland consented rents to support new build. The Rutland Group, which bought the smaller portfolio from the SDA for £16.5m, has just cracked the 25 pence per sq ft barrier for new units on the Queen's Estate in Glasgow, one of the 150 units bought. But that is unlikely to provide a strong benchmark for general rental levels for some time.

In portfolio A, the larger group of 60 estates bought for £104.5m by Caledonian Estates, the average unit was £120 per sq ft, and the range did not go much above 54.

Significantly, neither Caledonian nor Rutland put new development at the top of their priorities, though both portfolios have significant amounts of development land. There is already more than enough vacant space to be let to keep both companies busy for the foreseeable future.

There is no pressure on either company to speed up development. Caledo-

man's next priority is to "assess the development land," according to agents Richard Ellis. That assessment will be crucial in at least one important site: The Clydebank Enterprise Zone, one of the plum development sites in the country, ceases to be zoned as a special enterprise area next spring.

To complicate matters further, Scottish Enterprise will retain a sizeable portfolio of business centres and development sites for so-called "nest" units, and will continue to own completed estates until it can sell into a buoyant market.

Scottish Enterprise's portfolio has a current value perhaps £40m, which leaves Scottish

Enterprise in a far from vestigial position as a developer/owner, given that Caledonian's £100m purchase catapulted it into third place behind Scottish Metropolitan and Cityside Estates in the ranking of Scottish property companies.

The 60 estates in portfolio A, together with 365 acres of developed land spread from Aberdeen to Dumfries and from Kilmarnock to Dundee, the largest site being Hillington, described as "the Park Royal of Scotland". In all, there is 7m sq ft of industrial space so far, which amounts to per cent of the industrial land in Scotland under . While this makes

Caledonian, the largest industrial property holder, chairman Mr John Beckwith will be constantly eyeing the 2,000 acres of undeveloped land that Scottish Enterprise retains.

That landbank will continue to depress the market for a long time, notwithstanding the existence of the David Sangster, the SDA's head of property investment, for his new role at Scottish Enterprise.

Even in areas of under-supply, such as Aberdeen, rent increases are unlikely. No new speculative developments are planned in central Aberdeen and the SDA's intention is to try to go to break through £4, let alone the £4.50 which developers believe is the minimum for a viable new scheme.

In their view, the SDA has cosseted tenants for so long that the market rentals rarely apply. It will be a long time, they argue, before a true market economy is in force. Mr Sangster reluctantly agrees.

While the SDA is still around, even in a new form, it will continue to depress the market.

allow rents to rise to the \$430 which will attract new development. Without private sector developers, Scottish Enterprise will need to go on developing rents of well below that level or turn away potential industrialists who could boost the Scottish economy.

This aside, the Scottish industrial leasing market is not in the decline some fear. In south-east Mr Jim McAllister, chairman of Rutland, sees no slackening in terms of tenant demand. He is also confident of being able to raise rents as they come up for review, on the basis that rents are going to be agreed on a completely new basis of the patchy lease structures inherited from the SDA.

Rutland also has unusually active management on its estates, which it believes enables it to wring the maximum from rents.

It is also viewed on the Queensferry Estate shows how effective such a policy can be, but it does impose extra burdens on management and demands extra staff in estate offices.

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Wellington roads. Ryden is predicting rents of at least £15 per sq ft when these come on stream next year.

Edmondson is also preparing to embark on new industrial development in the Aitens area about seven miles out on the road south to Edinburgh. Slowly work is due to start next spring, but there must still be some doubt over the speed with which the company will put staff on site. Local agents in the area report that the market for plots is solid rather than exciting, and rents of about £3.50 or possibly £4 per

The shops market, which responds to the broader local economy rather than just office space, may be going through a settling down phase after a burst of successful new developments. The ambitious 200,000 sq ft Brompton Commercial Centre, developed by Bredero's, has been trading since the spring and 90 per cent of units have been let.

While this must bode well for Mountleigh Estates which has courted for a long time a shopping centre on the Greenwich side of Union Street, caution may also be called for at a time when Union Street itself is exporting a number of blank slate flats. Although rents in the area are high, at £100 to £120 a ft and Bon Accord has reached over £20 per sq ft, the signs may suggest taking a pause.

The focus is likely to be on offices for the foreseeable future, many of which are planned, has identified space needs up to five years hence. Offices will be needed to service new old fields scheduled for the mid-90s and cannot be accommodated in existing space. This could mean that demand may need more than 30,000 sq ft, the total coupled with demand from existing old companies, could reach 50,000 sq ft of prime space in a city where annual supply has rarely been higher than 400,000

Time has come to go it alone

EAST KILBRIDE Development Corporation, which runs the oldest of the Scottish new towns, is fighting for its life. It is campaigning to persuade the government that it should not be wound up, as envisaged in the **East Kilbride and New Towns (Scotland) Act**.

The Act provides for each of the five Scottish new towns to lose their special development status over a period of years at the end of which they will no longer be controlled by a development corporation.

Mr John Shaw, managing director of the East Kilbride corporation, clearly cannot imagine any better alternative to the current situation, although he will spare no effort to win the case. "Nobody believes the new town should go on for ever," he says, "but we should apply the lessons it has taught us about urban development."

"We have learnt the virtues of an integrated economic and physical development approach - the single door approach. Why do we have to keep reinventing the wheel?"

Mr Shaw's chairman, Mr George Young, is even more open about his views, publicly savaging the management team only a month after the elections governing the wind up are known. He intends that the

staff of the corporation should start themselves into a new development company, which would continue to own, manage and develop the area's industrial and commercial property assets in the same integrated fashion as before.

Under the second option, the piecemeal disposal of the corporation's £750 million assets, which is not likely to be in the best interests of the community," says Mr Young.

Under a "wings plan," the council would transfer the housing stock to a housing trust controlled equally by the reconstituted corporation in its buy-out form, the district council and the tenants. This part might appeal to the government, but Mr Young already said that it sees no reason to transfer the rented housing to the council. But it is not clear whether the basic concept behind the plan — of maintaining a single, unified body in charge of industrial and commercial development — has the same attractions to government.

The precise details of the wind up have been left to Mr Ian Lang, the Industry Minister for Scotland, and his views are expected to be public in the early part of the year, although doubts, however, if government policy would favour the notion of replanning.

a state-owned monopoly with a private sector replica. Especially since both Mr Young and Mr Shaw insist that they must be able to pay a market rate at a price which reflects their value only as working capital for a continuing development programme, rather than in terms of the value of the land itself.

The argument, which will intensify throughout the autumn, may be a forerunner of others to come in England and Wales. The development of the new towns is a purpose very well, attracting industry, jobs and people out of decayed inner city areas to more pleasant countryside.

London, for example, in 1947, when it received new towns, the population of East Kentridge has grown from 2,400 to 70,000, attracted 30,000 jobs and achieved an unemployment rate of only 10 per cent, far below by national standards.

"The question now is

whether the town and eventually the others which followed it, should continue to have, or need, this prop," says Mr. David Young, executive director of the investment for the Scottish Development Agency. The SDA is to have a less interventionist role as Scottish Enterprise uses its own funds to develop the town.

Mr. Sanger takes a less opposite position from Mr. Young and Mr. Shaw. Under the subsidised structure of today, he says, "we have been jointly responsible for the town's development." Mr. Sanger believes the new towns can now manage without the paternal supervisor and he relishes the idea of the new towns competing to provide services as and when those offer the prospect of commercial return.

Mr. Young's view, however, is shared by a number of the other senior officials. The town chiefs, notably Mr. Bob Watt, chairman of Livingston: "It is

paradoxical that at a time when the government is considering winding up the townships, we find ourselves in our busiest and most successful period of expansion. There are now well over 22,000 people working in Livingston, most of these created over the past decade.

Mr Watt and his chief executive, Mr Jim Pollok, attribute this success to "the corporation's policy of continually nurturing growth and believe that we can make sites and factories available to meet the need of companies". The unspoken assumption is that this can only be done effectively by a nominated development corporation.

Mr Pollok, Livings-tone's team has a good record of attracting businesses - particularly in electronics. In the spring of this year, for instance, the US company Motorola agreed to locate 2,000 jobs in the town. But Mr Watt, the proponent of change, is precisely why the towns are now strong enough to return to normal status.

A more circumspect approach is favoured by senior executives at Irvine's new town. Chairman Ross Smith is calm, confident when the corporation winds up, Irvine will be well prepared to meet the chal-

lenges of the next century. But then, while East Kilbride must wait until 1994 and Glasgow until 1994 and 1994, Irvine need not start until 1984 and has until 1999 to complete the job.

No wonder Mr Beish has been able to focus his attention on raising the unemployment rate of last year's record year for inward investment when unemployment dropped from 12.8 to 10.6 per cent as a new paper mill opened with 400 jobs and two major American electronics plants have brought a further 570 jobs.

A third, not unexpected, faction exists in the form of the local authorities, incensed that the development corporation's housing stock will not become local council housing.

A pressure group called Slant (Scottish Local Authorities with New Towns) commissioned a survey of tenants which showed that 76 per cent would choose the local council over the development corporation. Mr Malcolm Rifkind, the Secretary of State, told Parliament that no such preference had been put to the government.

Meanwhile, Mr Lang is still deliberating and none of the parties knows if the corporation's essential will be given the chance to mount a buy-out, let alone at the preferential price Mr Young believes essential.

fresh period of exploration by both new and existing companies, the demand for new camps is becoming clamorous.

Grampian Petroleum Council president, J. A. McLeod, says prospects will bring more than 50,000 new jobs to the area. The population of the region is about 500,000 and unemployment is half the Scottish average. The first glimpses of the new boom surrounded property developers to dust off old plans as long ago as the second half of 1988 when office rents were still under £8 per sq ft. They are now £12.50 per sq ft and expectations at Ryden confidently expects to reach £16 per sq ft within a year.

The first new developer to anticipate the city's re-awakening was R.H. Edmondson, a Cirencester company which bought the site of the former market of the previous boom—the seven-year-old Victoria Tower.

In June this year, after a thorough refurbishment, Rodney Edmondson was able to let 31,144 sq ft of the total 38,000 sq ft to the tower's Enterprise Oil for \$9.30 per sq ft. After selling the tower to Bett Properties, a local investment company, Edmondson plans to move on to develop 35,500 sq ft of top quality office space at a further £100 per sq ft in the heart of the city. It also has plans for

Sleepless nights ahead

IT DEPENDS who you talk to whether you believe 1990 is turning into a full-blown disaster for the hotel trade, or just suffering more sticky patches than usual.

The evidence is certainly conflicting. While there have been a few modest receiver ships than in the south, record number of business hotels have changed hands. This, some argue, suggests a game of pass the parcel at the end of which the winner will be the one to keep it longest. It comes to pay today's interest rates, the uniform business rate and inflation-hit running costs from the room rates of scarcer guests.

Mr Peter Tyrrie, of the Balmoral hotel group, is one of those who mutes the gloom-and-doom forecasts. But then his first Scottish hotel investment may be exceptional. After losing the takeover battle for Norfolk Capital group, Balmoral has been sold to a large of hotels which includes Queen's Moat, which winner the North British hotel on Edinburgh's Princes Street. Tyrrie will have spent £33 million on the 5-star purchase and will be the next owner of the Edinburgh Balmoral, including £20 million on refurbishment.

A clean out by Embassy Hotels (part of Allied) of its portfolio brought another Prince Street hotel onto the market in the late summer. At £260,000 per bed, it was "possibly cheap", says Christie & Co, the specialist hotel agency. But the agency is not so sanguine about the sale of other deals being struck.

Upmarket tourism and business trade have increased greatly in Scotland in the last two or three years. But so have the numbers of hotels servicing this sector. In Glasgow, in particular, there is a looming glut of 4-star and 4-star accommodation.

Most of the hotels in this category are part of important groups, such as the new Hilton under construction next to the M8 motorway, but not all. For instance, an Edinburgh hotel complex, Bristlewood, has just taken over a 55-bed upmarket building next to the new Glasgow International Concert Hall and are upgrading it to 60 beds with conference facilities.

Hotels also have examples of the new townhouse hotels. In Glasgow, the former Liberal Club is being converted by Hidden Hotels into a 32-bed townhouse with conference facilities, next to the Gaiety Theatre. In Edinburgh, a pair of townhouse hotels will soon rub shoulders in Devonshire Gardens.

Such specialist niche operators will put pressure on the big, impersonal business hotels. But the latter are in less central positions. These must pin their hopes on the start of direct flights to the US from Glasgow airport earlier this year and on the after-effect of the 1992 war as European City of Culture.

Again, the signs are mixed. Occupancy rates in Glasgow were said to be 90 per cent in the first half of the year, but in late September Christie put them at the low 80s. Edinburgh the high 60s. That is fair


enough for the late summer "shoulder" season, but not encouraging for the ambitious number of new schemes.

Scotland is better known for its country house hotels and small inns - and here the market for very small inns is expected to be highly active, not uncommon for this time of year when so many beginners decide to bale out. More significant may be that prices have softened this year as new entrants, particularly from the Continent, are less eager, because of interest rates, inflation and the uniform business rate.

The country house market, which in Scotland is frequently part of a sporting estate, may be the last to show signs of recovery. Good country houses are rarely available, but even fewer than usual are coming onto the market. Of those that are, the only sign of a downturn, says Christie, is that fewer are being sold than the asking price. But that, believes the agency, may reflect the difficulty southerners have in finding a buyer for their own property rather than a disillusionment with the Scottish market.

Only one type of hotel seems in obviously short supply, and that reflects its traditionally poor image - the budget inner city hotel. Roger Tym & Partners, the Glasgow-based architects and planners, notes that Glasgow's tourist board and district council are worried that only 18 per cent of the city's bed space is in the low cost category. Viewed from the points of view of city centre sites and property values are too high.

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THE PROPERTY MARKET

Eastern promise attracts developers

By Vanessa Houlder

A developer's paradise? Or a morass of crumbling infrastructure and legal complexity? As the cities of East Germany emerge from the long shadow of the second world war, the enthusiasm of overseas developers varies drastically.

Bomb sites gape in the boulevards, crumbling buildings are boarded up and offices and shops are scarce and dilapidated. "It is like looking at a time capsule," says Mr Ronald Nathan of Waterglade, which expects to make its first investment in east Germany by the start of next year.

For pioneers such as Waterglade, the attractions of cities in east Germany are manifest.

For one thing, there is the potential strength of the German economy over the next five to 10 years. For another, there is the accessibility of the east German market, which far outstrips any of the rest of the eastern bloc. Unlike Hungary, Czechoslovakia and Poland, east Germany is importing a tried and tested system of land law and planning procedures. In addition, there will be no problems concerning currencies or repatriating profits.

Moreover, there is the promise of relatively high rents, where demand outpaces supply. Mr Nathan thinks

rental values for offices in east German cities will be DM40-50 per square metre per month compared with average rents of DM85-90 per square metre per month in Frankfurt and DM25-40 per sq metre per month in Hamburg and Düsseldorf.

However, these attractions are tempered by considerable problems. It is always difficult to operate in an overseas market - memories of the disastrous attempts by UK developers to move into the West German market in the early 1970s are vivid.

This customary caution is exacerbated by concern over: ● Land rights - the most serious obstacle to new development. Possibly as much as a fifth of east German property is subject to claims from former owners, who had their land seized by the Communist government. As a result, it has been illegal for the East German state to sell property to western investors.

That, however, is about to change. In an effort to stimulate investment, the German government has - contrary to its initial plans - decided to compensate former owners rather than return their land. The current plan is to pay people the value of property when it was expropriated, plus 1 per cent a year interest on that sum. All claims for compensation must be received in about a week's time.

● Infrastructure. After land rights this is the most serious issue facing would-be developers. In the east, the road, rail and telephone systems are all in poor condition. Trains cannot travel at more than



Emerging from a time capsule: eastern Berlin officials are working out a strategic plan for the city

40mph because of the state of the track, many roads have not been altered since before the second world war and telephones are difficult to obtain and notoriously time-consuming to use. "There is fantastic demand for offices but it is a question of getting the infrastructure there to cope with it. People will hold onto land until problems are sorted out," says Mr Nathan.

● Planning. Although east German will assume West German

planning procedures, it will take officials considerable time to work out matters such as zoning plans. Meanwhile, the German government will attempt to regulate new development. In east Berlin, for example, officials have been working out a strategic plan for the city. "They see it as a fantastic opportunity to get the planning right," says Mr Robert Campbell, a partner of Jones Lang Wootton.

● General lack of information. Sev-

eral UK surveyors, headed by Jones Lang Wootton, which opened a Berlin office in April, have been carrying out research on east German property in the past few months.

However, it has been impossible to value the land. Even in what used to be East Berlin it is difficult to gauge how prices will compare with the West. The difference in the quality of the infrastructure will drastically distort the values of property separated by just a few

hundred yards.

It seems inevitable that companies from west Germany will dominate the property market. For several months, West German developers have been scouring East Germany for land to erect new buildings as well as existing buildings to refurbish. West German businesses planning to expand into the east have also been looking for premises.

However, foreign developers are also expected to play a part. The most prominent players will be the Scandinavians, followed by the Dutch, French, British and ultimately the Japanese and Germans, in the view of Mr Chris Bull-Diamond of Weatherall Green & Smith, a chartered surveyor with offices in Frankfurt and Munich.

He reckons that a handful of UK companies are already sniffing around. Many, however, will prefer to play a waiting game. MIPC says that its involvement in West Germany has spurred it to look carefully at investment in the east. However, no moves are planned until the legal complexities have been ironed out, according to Mr Roger Squire, a director. "The big problem is the legal environment. We are interested but there are still a lot of problems," he says.

Initially, developers are likely to home in on Berlin. But companies such as Waterglade are also planning developments in Leipzig and Dresden. "The development of Dresden and Leipzig will perhaps be a bit slower but it will be easier to organise than Berlin where there is the problem of putting together two

large cities," says Mr Campbell. In all these cities, developers are likely to concentrate on the centre. "The prime areas need to be revived. It is a matter of three or four streets in central locations," says Mr Nathan.

Overseas developers will be disinclined about the segment of the market they enter. Although there is intense demand for improved housing, this market is traditionally dominated by local players. Similarly, the upgrading of industrial property is likely to be left to German companies. Foreign developers may also be reluctant to become involved in the retail market. "I don't think people will go into the retail market because the spending power is not there," adds Mr Campbell.

Hotels and offices are the most probable targets of foreign interest, in the view of Mr Nathan. He cites the example of Spain and Portugal, which saw a spate of office and hotel developments by foreigners when they joined the EC.

Waterglade itself intends to focus on speculative office buildings, although it hopes it will secure some pre-lettings. "The initial demand will be to satisfy international companies, like the big accountancy firms, the major law firms, big banks, multinationals like ICI, which demand an early presence," says Mr Nathan.

The enthusiasm of would-be developers is shared by industry advisers. "There will be a lot of windfall profits for people who get them right," says Mr Chris Bull-Diamond. However, nobody believes that the pickings will prove easy. "One has to be very realistic about it. It will take a lot of time for the economies to get up to speed," says Mr Campbell.

CAPITAL GROWTH (%)				
	Retail	Office	Industrial	All Property
Year to Aug 1990	-8.5	-8.7	-1.8	-5.5
Quarter to Aug 1990	-4.3	-5.1	-3.8	-4.5
Month of Aug 1990	-1.9	-2.4	-0.9	-1.9

Source: Investment Property Database

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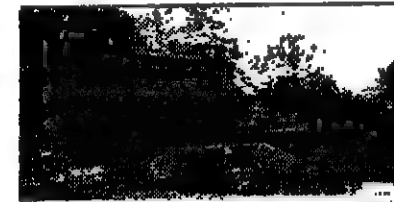
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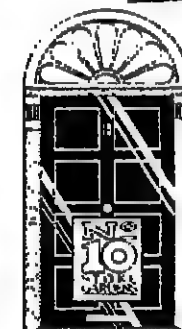
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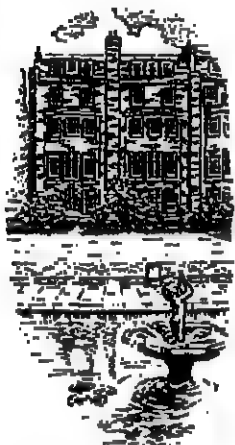
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File No: 15B/RH-4
Order No:
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Bid Submission Date: 20.11.19901. The TURKISH ELECTRICITY AUTHORITY, hereinafter referred to as
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Bid Submission Date: 20.11.19901. The TURKISH ELECTRICITY AUTHORITY, hereinafter referred to as
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applied to eligible payments under the Contract(s) for which this invitation
for bids is issued.2. The TURKISH ELECTRICITY AUTHORITY now invites sealed bids
from eligible bidders for supply and installation of Phase Gas Analyzers.All the above equipment shall be supplied and installed according to the
Bidding Documents.3. Interested eligible bidders may obtain further information from and
inspect the Bidding Documents at the office of:
TURKISH ELECTRICITY AUTHORITY
General Management
Department of Finance
Istanbul Bulvarı No:27 Kat:1
Bahadievler San. Durağı
ANKARA/TURKEY
Tel: 42945 tel. telex
Telefax: 3261-32604. A complete set of Bidding Documents may be purchased by any interested
eligible bidder on the submission of a written application to the above
office and upon payment of a non-refundable fee of 100 USD or 300,000
TRL at the following address:TURKISH ELECTRICITY AUTHORITY
General Management
Department of Finance
Istanbul Bulvarı No:27 Kat:4
Bahadievler San. Durağı
ANKARA/TURKEY
Those bids submitted by the bidders who did not purchase the Bidding
Documents shall be rejected.5. All bids must be accompanied by a bid security in an acceptable form of
3% (three percent) of the bid price and must be delivered to the above
office on or before 14.00 hours on 20.11.1990.6. Bids will be opened in the presence of those bidders representatives who
choose to attend at 14.00 hours on 20.11.1990 at the office:TURKISH ELECTRICITY AUTHORITY
General Management
Procurement Commission
Istanbul Bulvarı No:27 Kat:4
Bahadievler San. Durağı
ANKARA/TURKEY

COMPANY NOTICES

BBV BANCO BILBAO VIZCAYA

SECOND INTERIM DIVIDEND 1990
The Board of Directors of Banco Bilbao Vizcaya has approved the payment of a
second interim dividend for the financial year 1990 on all shares in issue,
numbered 1 to 231,000,000, as follows:
Gross Dividend Tax Net Dividend
36 Pesos 9 pesos 27 pesos
Date of payment: On or after 10th October 1990
Place of payment: At the Head Office or branches of Banco
Bilbao Vizcaya or its subsidiaries.HOLDERS OF INVESTOR DEPOSITARY RECEIPTS (IDRS) should present
Coupon No. 17 at one of the offices listed below:HSBC Bank Limited Morgan Guaranty Trust Co. of New York
45 Beach Street Avenue Des Arts, 35
London EC2P 2LX Kuratlihan, Brussels 1040IDR holders will receive sterling converted at the rate of exchange ruling on the
day of presentation of their coupons, and payment will be made five business
days from that date. In the case of coupons presented for payment in London,
UK tax will be deducted, unless accompanied by an Inland Revenue Affidavit of
Non-Residence.MMC INVITES EVIDENCE AND
VIEWS ON THE PROPOSED
MERGER BETWEEN BRITISH
AEROSPACE PLC AND
THOMSON-CSF SAThe Monopolies and Mergers Commission is
inquiring into this proposed merger between British
Aerospace and Thomson-CSF of their respective
businesses relating to the design, manufacture and
sale of guided weapons systems, to determine
whether or not such a merger might operate against
the public interest.The Commission would like to hear from those
who have information which could help the inquiry,
and from those who have views on the proposed
merger. Please write by 19 October 1990 to The
Reference Secretary (British Aerospace/Thomson-
CSF), Monopolies and Mergers Commission, New
Court, 48 Carey Street, London WC2A 2JT.

مركز استشارات

هكذا من المال

BUSINESSES FOR SALE

Major Retail, Commercial & Residential

Opportunity
Mallorca - Spain

Situated on the outskirts of Palma with direct access to the main Palma to Inca motorway. An opportunity to participate in the development of a new town to cater for the expanding resident population on a site extending to approximately 180 hectares. The development includes a major shopping centre incorporating a new railway station, business park and two large residential communities. Enquiries invited from substantial international investors, developers and construction companies interested in participation in the project either by way of joint venture or purchase. For further information please write to: Aidan Birrell, Coopers & Lybrand Deloitte, Plumtree Court, London, EC4A 4HT. Telephone No: 071 583 5000 Ext 8601. Coopers & Lybrand Deloitte is authorised by the Institute of Chartered Accountants in England and Wales to carry on investment business.

Coopers & Lybrand Deloitte

Domestic Furniture Manufacturer

Opportunity to acquire the business and assets of Pack Royal Fabrications Limited which include:

- Specialist plant and machinery.
- Stock and good customer base.
- Turnover approximately £1.7m per annum.
- Leasehold property around 20,000 sq. ft. at Shipley, near Huddersfield, Derby.
- Rental property approx. 8,600 sq. ft. at Grantham, Lincs.

The business consists of two divisions, the manufacture of chipboard components and furniture at Shipley, near Huddersfield, Derby and the fabrication of metal components and light engineering at Grantham.

For further details please contact Peter Powell, The Joint Administrative Receiver or Barry Smith at Stoy Hayward, Foxhall Lodge, Gregory Boulevard, Nottingham NG7 6LH. Tel: 0602 626578, Fax: 0602 691043.

STOY HAYWARD

Accountants and Business Advisers A member of Horwath International
Authorised by the Institute of Chartered Accountants in England and Wales to carry on investment business.

Humberts Leisure

By Direction of the Portledge Hotel plc
For Sale the Lease of the Portledge Hotel, Bideford, Devon

- One of the most lovely and historic hotels in the country.
- 26 bedroom suites and planning consent for 51 further suites.
- Conference facilities and separate garden carvery.
- Mansion house of the Coffin family dating back from 1088.
- Access to secluded sandy Atlantic beach.
- Standing on 1,000 acres of the freeholder's park and farmland.

Full details: Exeter Office, Tel: (0392) 211555
241385-JMS

Central Bradford Licensed Leisure Premises

- Single storey 21,000 sq. ft. modern portal framed building with open span.
- Conversion opportunity for 20 lanes of Ten Pin Bowling, nightclub or similar D2 (leisure) use.
- High catchment area.

For Sale Leasehold - 98 years remaining
01-25-4013 TPHS

Humberts Chartered Surveyors
Tel: 071-629 6700
24 Grosvenor Street, London W1X 9PE
Fax: 071-629 6740

DMW ASSOCIATES (ELECTRONICS) LIMITED

The Joint Administrative Receivers offer for sale the business and assets of the above company. The business, based in Braunston, Northamptonshire, comprises the design and manufacture of communication, synchronisation and amplification equipment for Government Agencies. Included for sale are the following:

- Laboratory drawing office equipment and instrumentation.
- Extensive environmental test facilities.
- In house metal work, machining and welding facilities.
- Currently approved to Defence Quality Assurance Standard AQAP1.
- Skilled workforce.
- Turnover approximately £1 million per annum.
- Freehold property comprising factory unit of approximately 28000 sq ft plus outbuildings suitable for redevelopment. Total site area approximately 1.2 acres.

For further information please contact the Joint Administrative Receiver: John Wheatley

KPMG Peat Marwick Corporate Recovery
Peat House, 2 Cornwell Street, Birmingham B3 2DL
Tel: 021 233 1666, Fax: 021 233 4390.

4 GL SYSTEMS LIMITED

The Joint Administrative Receivers offer for sale the business and assets of computer software distributors and bespoke software implementation and management, coupled with sales of related hardware.

- Annualised turnover of £5 million, high margin business.
- Extensive market for accounting and business software on INGRES database and direct mail marketing software on ICL and IBM computers.
- Offices in modern leasehold buildings close to Manchester and Heathrow airports plus good motorway access.
- High investment in developing software products and large pipeline of potential clients established.
- Steady maintenance revenue from existing customer base.
- Existing client base of major PLCs and institutions.
- Other locations in Cumberland, Bradford and Brussels.

For further information please contact the Joint Administrative Receivers: Philip Ramsbottom or Alan Benzie

KPMG Peat Marwick Corporate Recovery
7 Tib Lane, Manchester M2 2DS
Tel: 061 832 4221, Fax: 061 832 7265.

MON BUILDING SUPPLIES LIMITED

(In Administrative Receivership)
The administrative receivers offer for sale as a going concern the business and assets of Mon Building Supplies Limited being builders and plumbers for trade and retail customers.

- Freehold premises on a site of approximately 0.75 acre, situated at Amlwch, Anglesey.
- Stock, equipment and vehicles and
- Draft turnover year ended 31 March 1990 £1.7 million.

For further details please contact
Stephen Quinn or David Wily,
BDO Binder Hamlyn,
Scottish Provident House,
52 Brown Street,
Manchester,
M2 2AU.
Telephone: 061-831 7121
Fax: 061-833 0669

BDO
BINDER
HAMLYN

Chartered Accountants

BDO Binder Hamlyn is authorised to carry out investment business by the Institute of Chartered Accountants in England and Wales.

JOYSTICK MANUFACTURER

The assets and trade of Creative Devices Research Limited are offered for sale as a going concern. Based at Rassau (Ebbw Vale) South Wales, the Company manufactures a range of ten computer joysticks.

- Potential annual turnover of £2.5m
- World wide sales outlets
- Reliable quality products
- Leasehold premises of 20,000 square feet.
- Interested parties should apply to the joint administrative receivers: Barry Mitchell and Barry Jones

KPMG Peat Marwick Corporate Recovery
Machynog House, Ffynnon Court, Ffynnon Road, Cardiff, CF2 1TB. Tel: 0222 462463, Fax: 0222 481605.

Northern Scottish

On the instructions of the Secretary of State for Scotland, the Scottish Transport Group offers for sale:
NORTHERN SCOTTISH OMNIBUSES LTD
Based in Aberdeen, the company trades as Bluebird Northern, and is a major operator of local bus services in Scotland's Grampian Region. The company also runs coaches. For further information, please write to:



Mr Malcolm Roddigh,
Commercial and Planning Executive,
The Scottish Transport Group,
Carron House,
114/116 George Street,
Edinburgh EH2 4LX

The contents of this advertisement, for which the Scottish Transport Group is solely responsible, have been approved for the purposes of Section 57 of the Financial Services Act 1986 by Coopers & Lybrand Deloitte as a firm authorised by the Institute of Chartered Accountants in England and Wales to carry on investment business.

The shares in Northern Scottish are not traded on a recognised or designated investment exchange and as a result there is no recognised market for the shares.

Motor Dealership

LEEDS

The Joint Administrative Receivers offer for sale as a going concern the business and assets of this division of Hill Financial Services Limited.

Principal assets include:

- Purpose built freehold showroom and workshops at Birstall, Leeds, presently operating as a Citroen dealership
- Stocks of new and second hand cars
- 23 staff

For further details, please contact the Joint Administrative Receiver, Alan Marlor, Ernst & Young, Barclays House, 6 East Parade, Leeds LS1 1HA. Tel: 0532 431221. Fax: 0532 442241.

Ernst & Young

Authorised by The Institute of Chartered Accountants in England and Wales to carry on investment business.

For Sale Catering Equipment Distribution Co.

Long Established in designing and installation of commercial kitchens, food serving and laundry systems etc. Based Yorkshire.
T/O 1/2 Million.
Write Box H7375, Financial Times, One Southwark Bridge, London SE1 9HL

Spain

For Direct sale
Hotel Sotogrande

46 Bedrooms, superb location adjacent to famous golf courses, large landscaped grounds with further development potential.

Contact:
London Tel: 071 730 9321,
Fax 071 730 2477
Tlx 982851

ROSE BUSINESS

Established rose bush business in the East Midlands, with the benefit of Export and domestic contracts, for sale. Stock of 750,000 bushes for sale in 1991 and 1992.

For further information please write Box H7377, Financial Times, One Southwark Bridge, LONDON, SE1 9HL

LEISURE BUSINESS FOR SALE

Management and syndication of racehorses plus telephone information service. Business Trading Since 1976.

Total annual turnover £200,000.
For further information please write to Box H7381, Financial Times, One Southwark Bridge, LONDON, SE1 9HL

The Pheasantry Group Limited

(In Receivership)
Central London

The above company and its subsidiary companies main activity is the operation of a number of wine bars and restaurants located in leasehold premises in Central London comprising:

- 3 Wine Bars
- 3 Restaurants
- 2 Tapas Bars

The annual turnover is circa £2.8 million and the group has 130 employees.

For further details please contact the joint administrative receivers, Maurice C Withall or Iain J Allan at: Grant Thornton, Grant Thornton House, Melton Street, Euston Square, London NW1 2EP.
Tel: 071-383-5100 Ext. 2401
Fax: 071-383-4077

Grant Thornton

The U.K. member firm of Grant Thornton International. Authorised by the Institute of Chartered Accountants in England and Wales to carry on investment business.

Wool and Synthetic Topmaker

The Joint Administrative Receivers offer for sale as a going concern the business and assets of Sir James Hill & Sons Topmakers - a division of Sir James Hill & Sons Limited.

Principal assets include:

- Annual turnover approximately £3.3m
- Freehold premises at Keighley, W. Yorks
- Plant and machinery
- Speciality processing facility
- Approximately 50 staff including management and laboratory teams

For further details, please contact the Joint Administrative Receiver, Alan Marlor, Ernst & Young, Barclays House, 6 East Parade, Leeds LS1 1HA. Tel: 0532 431221. Fax: 0532 442241.

Ernst & Young

Authorised by The Institute of Chartered Accountants in England and Wales to carry on investment business.

MICROFILM BUREAU

Central London location. Fully equipped for full range of services. T/O \$1/4 million p.a.
PO Box No: H7319
Financial Times
One Southwark Bridge
London SE1 9HL

COAL COMPANY

with proven open cast and underground reserves of approximately 1 million tonnes for sale or merger with larger company.
Principals only write to Box H7376, Financial Times, One Southwark Bridge, London SE1 9HL

ELECTRICAL DISTRIBUTION PLC

wishes to dispose of subsidiary company, based in Ireland, mainly involved in contract supplies. Replies principals only write to Box H7374, Financial Times, One Southwark Bridge, London SE1 9HL

TELECOMMUNICATION SERVICES

A Long-established nationwide installer, supplier and maintainer of 'key-phone' telephone systems, PABX's and related products, with a S.E. Head Office, is available for acquisition. Sales are \$3 1/2 million p.a. (approx.) including an annual maintenance base of £700,000 (approx.). Principals only write to Box H7386, Financial Times, One Southwark Bridge, London SE1 9HL.

Bahamian Company For Sale

Assets comprise two valuable plots of land on out island only 60 miles (approx) from Nassau/Miami. With marina, golf course, international airport. Price £45,000. Write to H. Coates, 312 Beverley Road, Anlaby, Hull, E. Yorks or tel: 0482 652984

FOR SALE

Long established office products distributor located in Central London. Turnover circa £3.5m per annum. Experienced management seeks a mature partner. May suit European concern. Serious enquiries only write to Box H7379, Financial Times, One Southwark Bridge, London SE1 9HL

Closed Circuit Television Security Company

for sale in North West. Turnover £300,000 PA. with Maintenance Contracts. Write Box H7378, Financial Times, One Southwark Bridge, London SE1 9HL

FOR SALE

Profitable wholesale meat depots. Ideally situated The North of England Midlands The South of England The South West of England Annual turnover £7 million. All together or individually Write Box H7406, Financial Times, One Southwark Bridge, LONDON, SE1 9HL

BUSINESS AND ASSETS

of solvent and insolvent companies for sale. Business and Assets
Tel 071-262 1164.

BUSINESSES FOR SALE

Tuesdays,
Saturdays
and now FRIDAYS
For further information please contact

Gavin Bishop on
071-873 4780
or
Sara Mason on
071-873 3308

FINANCIAL TIMES
EUROPE'S BUSINESS NEWSPAPER

LEGAL NOTICES

UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF NEW YORKIn re
THE DREXEL BURNHAM LAMBERT GROUP INC. ET AL.
Debtors.

Chapter 11 Case No. 90-1041 (HCB)

NOTICE OF ENTRY OF BAR ORDER FIXING LAST DAY TO FILE PROOFS
OF CLAIM OR PROOFS OF INTEREST AGAINST DEBTORSTO ALL PERSONS AND ENTITIES WITH CLAIMS AGAINST OR EQUITY
INTERESTS IN ANY OF THE FOLLOWING DEBTOR ENTITIES:

PLEASE TAKE NOTICE, that the United States Bankruptcy Court for the Southern District of New York (the "Bankruptcy Court") has entered an order dated July 23, 1990 (the "Bar Order") regarding all persons and entities, including individuals, partnerships, corporations, estates, trusts and governmental entities (collectively, "creditors") who have claims or equity interest in any of the following Debtors (collectively, the "Debtors") which arose on or prior to the respective chapter 11 filing dates:

Drexel Entity
THE DREXEL BURNHAM LAMBERT GROUP INC.
DREXEL BURNHAM LAMBERT TRADING CORPORATION
DREXEL BURNHAM LAMBERT TRADE FINANCE INC.
DREXEL BURNHAM LAMBERT INCORPORATED
BBS INCORPORATED
DELAWARE UNITED
DREXEL BURNHAM LAMBERT (ASIA) LTD.
DREXEL BURNHAM LAMBERT CAPITAL GROUP INC.
DREXEL BURNHAM LAMBERT COMMERCIAL INTERNATIONAL INCORPORATED
DREXEL BURNHAM LAMBERT INTERNATIONAL INC.
DREXEL BURNHAM LAMBERT INTERNATIONAL INC.
DREXEL BURNHAM LAMBERT MBI CORP.
DREXEL BURNHAM LAMBERT PRODUCTS CORP.
DREXEL HOLDINGS INC.
FIRST DBL CORPORATION
DREXEL BURNHAM LAMBERT GOVERNMENT SECURITIES INC.

As used herein, the term "claim" means (a) right to payment, whether or not such right is reduced to judgment, liquidated, unliquidated, fixed, contingent, matured, unmatured, disputed, undisputed, secured or unsecured; or (b) right to an equitable remedy in respect of such right as such right is reduced to judgment, liquidated, unliquidated, fixed, contingent, matured, unmatured, disputed, undisputed, secured or unsecured.

PLEASE TAKE FURTHER NOTICE THAT if you are required to file a proof of claim or proof of interest and fail to do so in the manner prescribed, you will be forever barred from voting upon, or receiving distribution under, any plan or plan of reorganization for any of the Debtors, and will be forever barred from asserting any such claim or equity interest against any of the Debtors or their successors or assigns, EXCEPT THAT:

- ANY PERSON OR ENTITY THAT HAS ALREADY FILED A PROOF OF CLAIM OR PROOF OF INTEREST AGAINST THE DEBTOR ENTITIES LISTED ABOVE, OR WHOSE CLAIM IS NOT LISTED AS "DISPUTED," "CONTINGENT" OR "UNLIQUIDATED" IN THE DEBTOR ENTITIES' SCHEDULES OF LIABILITIES FILED WITH THE CLERK OF THE BANKRUPTCY COURT AND (2) THAT AGREES WITH THE CLASSIFICATION AND AMOUNT SET FORTH THEREIN NEED NOT FILE A PROOF OF CLAIM.
- ANY PERSON OR ENTITY (1) WHOSE CLAIM IS NOT LISTED AS "DISPUTED," "CONTINGENT" OR "UNLIQUIDATED" IN THE DEBTOR ENTITIES' SCHEDULES OF LIABILITIES FILED WITH THE CLERK OF THE BANKRUPTCY COURT AND (2) THAT AGREES WITH THE CLASSIFICATION AND AMOUNT SET FORTH THEREIN NEED NOT FILE A PROOF OF CLAIM.
- THE CLAIMS AND INTERESTS DESCRIBED BELOW ("EXCLUDED CLAIMS") ARE NOT AFFECTED BY THIS NOTICE OR THE BAR ORDER AND THEREFORE ANY PERSON OR ENTITY THAT HAS AN EXCLUDED CLAIM NEED NOT FILE A PROOF OF CLAIM OR INTEREST BEFORE THE BAR DATE FOR SUCH EXCLUDED CLAIM. ALL OTHER PROOFS OF CLAIM OR PROOFS OF INTEREST MUST BE FILED ON OR BEFORE NOVEMBER 15, 1990, THE BAR DATE.

1. Participants in any Debtors' pension plans (the "Pension Plans") need not file a proof of claim for any claim arising in connection with such pension or pension benefits provided thereunder; provided, however, that any current or former employee of a Debtors Entity or his or her successors, heirs or beneficiaries who wish to assert a claim against any Debtors Entity that is not based solely upon pension benefits as provided for in such Debtors' Pension Plans (e.g., claims for disability or denied claim appeals from the Pension Plans, grievance claims, claims in respect of employee welfare plans, wrongful termination, employee discrimination, personal injury, wrongful death, etc.) must file a proof of claim on or prior to the Bar Date, unless another exception is provided for herein.

2. Any Debtors Entity holding an intercompany claim against another Debtors Entity:

- Any person or entity (1) whose name is listed on the List of Equity Security Holders filed by The Drexel Burnham Lambert Group Inc. ("Group") pursuant to Bankruptcy Rule 1007 (a) (3) as a holder of outstanding shares of common or preferred stock ("Stockholders") of the Group and (2) that agrees with the number and kind of equity securities therein listed for such person or entity; provided, however, that any Shareholder who wishes to assert a claim against any Debtors Entity that is not based solely upon ownership of an equity interest in the Debtors Entity arising out of ownership of the common or preferred stock of the Group, including but not limited to claims based on (i) redemption rights of common or preferred stockholders, (ii) unpaid dividends declared prior to the date of the filing of Group's petition for relief under chapter 11 of the Bankruptcy Code, (iii) the value of such equity interest, or (iv) any other obligations of any Debtors Entity, must file a proof of claim on or prior to the November 15, 1990 Bar Date.

3. The claims, if any, of the United States Internal Revenue Service.

4. Any holder of a claim arising from the rejection of an unperfected lease or executory contract shall file any such claim on or prior to the date fixed in the order of rejection unless such order shall not specify such a date; if no such date is specified, any such claim must be filed on or before the November 15, 1990 Bar Date.

5. Claims of the United States Internal Revenue Service on account of tax claims against any Debtors Entity;

6. "Customer" claims against Drexel Burnham Lambert Incorporated or any other Debtors Entity that is or was a registered broker-dealer on account of any "customer" claim security or "customer" property, as such terms are defined in section 741 of the Bankruptcy Code, but not any other claims of any such holder.

PLEASE TAKE FURTHER NOTICE THAT ALL PERSONS AND ENTITIES OTHER THAN THOSE DESCRIBED IN PARAGRAPHS A, B AND C ABOVE MUST FILE A PROOF OF CLAIM OR A PROOF OF INTEREST ON OR BEFORE THE NOVEMBER 15, 1990 BAR DATE. IN THE ENGLISH LANGUAGE AND ANY AMOUNTS CLAIMED THEREIN MUST BE CONVERTED TO UNITED STATES DOLLARS AS OF THE RESPECTIVE DEBTORS' FILING DATE. OTHERWISE THE HOLDERS OF SUCH CLAIMS OR INTERESTS SHALL BE FOREVER BARRED FROM VOTING UPON OR RECEIVING ANY DISTRIBUTION OF CASH OR PROPERTY UNDER ANY PLAN OR PLAN OF REORGANIZATION FOR THE DEBTORS IN THESE CASES, OR FROM ANY SUCCESSOR TO ANY DEBTOR.

PLEASE TAKE FURTHER NOTICE THAT any or omissions of the Debtors that occurred prior to the date of filing for relief under the Bankruptcy Code, including any Debtors' indemnity agreements, guarantees, puts, calls, options and other similar arrangements and services provided to or by a Debtor, may give rise to claims against such Debtor notwithstanding the fact that such claims (or the injuries on which they are based) may be contingent or may not have occurred, matured or become fixed or liquidated prior to such date. Therefore, any creditor having a claim or potential claim against a Debtor, no matter how remote or contingent, must file a proof of claim on or before the November 15, 1990 Bar Date.

Proofs of claim forms must conform substantially to the form approved by this Court, a copy of which is on file at the Office of the Clerk and may also be obtained by telephoning 800-89-1618 or to Official Form No. 19, 20 or 21. Proofs of claim or proofs of interest must be filed by mailing such proof of claim or interest so that it is RECEIVED on or before the Bar Date to:

The Drexel Burnham Lambert Group Inc.
P.O. Box 95
Bowling Green Station
New York, New York 10274-0095
Bankruptcy Court by hand delivery or courier service (but not by U.S. mail) to:
Clerk, U.S. Bankruptcy Court
Room 614
Old Courthouse
One Bowling Green
New York, N.Y. 10004

so that it is RECEIVED on or before the November 15, 1990 Bar Date.

PLEASE TAKE FURTHER NOTICE THAT copies of the Debtors' Schedules of Liabilities and Group's List of Equity Security Holders are available for inspection during regular business hours at (i) the Office of the Clerk, United States Bankruptcy Court, Southern District of New York, 6th Floor, Old Courthouse, One Bowling Green, New York, New York 10004-1406, (ii) Fourman-Douglas Corporation, 1325 Southwestern Center Dr., Portland, Oregon 97201, (iii) the Office of Weil, Gotshal & Manges, Attorneys for Debtors, 767 Fifth Avenue, New York, N.Y. 10153, (iv) 10133 161st St., N.W., Suite 700, Washington, D.C. 20036; 701 Brickell Avenue, Miami, Florida 33131; 700 Louisiana, Suite 1000, Houston, Texas 77002; NCNB Plaza, 901 Main Street, Suite 4100, Dallas, Texas 75202; and 30 Stratton Street, London, W1X 3FL, England. In the event you have questions concerning the contents, filing or processing of your proof of claim or proof of interest, you may telephone 800-89-1618 between the hours of 10:00 A.M. to 6:00 P.M. Eastern Daylight Time for assistance.

Dated: New York, New York
July 23, 1990

WEIL, GOTSHAL & MANGES
Attorneys for Drexel Burnham Lambert Group Inc., et al.
Debtors in Possession
767 Fifth Avenue
New York, New York 10153
(212) 370-6000

In the name of Allah, the Beneficent, the Merciful



DAR AL-MAAL AHL-ISLAMI GROUP

DAR AL-MAAL AHL-ISLAMI is pleased to announce the addition to the Group of a wholly-owned subsidiary:

FAISAL FINANCE (Switzerland) SA
Geneva, Switzerland

This new institution is a bank-like finance company subject to articles 7 and 8 of the Swiss Federal Banking Law and provides Islamic banking and financial services from Geneva.

Objectives and Activities

- to consolidate and develop the financial business network of DMI
- to participate in the activity of the Swiss financial market
- to establish a link between the Swiss financial market and the Islamic countries

For all information on Islamic financial services, please contact:

FAISAL FINANCE (Switzerland) SA
84, avenue Louis-Casati
1216 Geneva / Switzerland
Tel: (022) 798 40 40
Telex: 415354 fts ch
Telefax: (022) 788 21 89

POLAND

The Financial Times proposes to publish this survey on:

20th November 1990

For a full editorial synopsis and advertisement details, please contact:

Patricia Surridge
on 071-873 3426

or write to her at:

Number One
Southwark Bridge
London
SE1 9HL
or contact: Nina
Kowalewska,
Warsaw, Poland,
Tel: (22) 48 97 87

FINANCIAL TIMES

Arts
Week
F S Sa Su M Tu W Th
5 6 7 8 9 10 11

October 5-11

EXHIBITIONS

London

Royal Academy of Arts. Monet in the 90s. The Series Paintings. The long-awaited blockbuster exhibition has opened in London sending reviewers scurrying to explain the artist's double vision. Burlington House, Piccadilly (S87 8578).
Hayward Gallery. Eduardo Chillida. Major retrospective of the Basque sculptor (261 0127).

Paris

Carte blanche et monuments sold in museums and metro stations enable visitors to avoid queues at 60 museums and monuments, including the Louvre, Musée d'Orsay and Versailles.

Musée d'Orsay. On the 100th anniversary of Impressionism, the Musée d'Orsay is a star. A charming town house set in greenery, it houses an important collection of paintings and drawings by Claude Monet and his friends. Monet's love of London is represented by the Houses of Parliament. Musée d'Orsay, 3 rue de la Harpe, closed Mon. Grand Palais. Biennale Internationale des Antiquaires. Under the sign of Louis XV, the 18th-century antique dealers, both French and foreign, cover a wide range of periods and styles and present precious objects in a wide range of evocative surroundings of the 18th century. Ends October 7.

Louvre. Euphrone. Some 60 Greek vases, amphoras and bowls testify to the art of Euphrone, painter and potter in the 5th century BC in Athens, in mastering the technique of red figures on black background. Open all days from 12 am to 10 pm, except Tuesdays. Ends Dec 31 (4050158).

Salon de la Grande Galerie. The newly opened gallery presents in its luxurious setting a selection of old masters from Holland, Germany, France, Belgium and Italy with names as diverse as Vermeer, Borch and Camille, Boucher and Tiepolo. 137, rue de la Harpe, closed Mon. (4285551).

Galerie de la Courcelle. 19th-century French masters. There are some remarkable small bronzes by Degas and Daubigny, but the specialty of this small bank gallery remain drawings by the Ecole de Barbizon. 11, rue Voltaire (4261075). Closed Sun and Mon.

Grand Palais. Picasso. A portrait of Jacqueline Picasso with her hands crossed round her knees is the symbol and the central point of an exhibition of 47 paintings, 20 sculptures, 40 drawings, 24 sketchbooks, 19 ceramics and 247 engravings and lithographs, which will come to an end in the last of October, the French national collections. The exhibition begins with the blue period and ends with the obsessive erotic work of Picasso's last 10 years. A period whose importance has only recently been recognised. Closed Tue, Wed late closing, ends January 14.

Picasso Museum. The restored 17th-century Hotel Sale, provides a fitting home for the world's largest collection of Picasso's work. It comprises 906 paintings, 156 sculptures and more than 3,000 drawings and engravings.

Grand Palais. Picasso. A portrait of Jacqueline Picasso with her hands crossed round her knees is the symbol and the central point of an exhibition of 47 paintings, 20 sculptures, 40 drawings, 24 sketchbooks, 19 ceramics and 247 engravings and lithographs, which will come to an end in the last of October, the French national collections. The exhibition begins with the blue period and ends with the obsessive erotic work of Picasso's last 10 years. A period whose importance has only recently been recognised. Closed Tue, Wed late closing, ends January 14.

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October 5-11

THEATRE

London

Jeffrey Bernard is Unwell (Apollo). James Bolam is the alcoholic journalist who embodies a Falstaffian, nay-saying life force while committing public suicide by vodka. Keith Waterhouse has stitched a fine play, the season's highlight, from Bernard's own writing. Ned Sherrin directs. (427 9888).

Aspects of Love (Princess of Wales). Andrew Lloyd Webber's latest is an intimate chamber opera based on Gertrude Stein's 1935 novella. Musically interesting and well directed by Trevor Nunn. A probable, but largely unspectacular, hit.

Burn This (Lyric). Blistering performances from John Malkovich and Juliet Stevenson in Landford Wilton's play about the mismatch of opposites (427 3888).

Singer (Barbican). Anthony Sher in Peter Flannery's modern Jacobean comedy, directed by the master of the darkly comic view of Britain since the Second World War. (328 8891).

Shadows (Queen's). Weeps about the love affair between crusty Oxford writer C.S. Lewis and the cancer-riddled American poet Joy Kilmer, which sees Lewis, Lewis and Lewis and Lewis into the awards stakes. William Nicholson's play is incredibly emotional. Joy Kilmer's direction is superb. (784 1156/428 8849).

Around Person Singular (Whitehall). Revival of early Ayckbourn comedy, directed by the master himself, about three couples at Christmas in three kitchens over three years. Moira Redmond, Richard Kiley and Leona Battersby on fine form in a production which confirms Ayckbourn's early bleakness (071 897 1119). Extended until January.

New York (Lyric). It will be known as the musical about Aida first hitting New York but it goes much further than that, showing the effect on a larger circle of people, who include a boy having a Bar Mitzvah and his parents, all three of them (324 8782).

Gypsy (St James). This 30th anniversary production does more than revive a rich, vivid musical; it also introduces a new twist in the Gypsy tradition, Type

Daily, as the bossy, tireless and tender Rose, who shamelessly leads her daughter into burlesque while rejecting a personal life for herself (246 0102). Grand Hotel (Martin Beck). Tommy Tune, Broadway's present musical director, directs this musical of the Garbo film to shake the bones of this last depiction of lives criss-crossing in an elegant, but somewhat random setting (246 0102).

Les Misérables (Broadway). The magnificent spectacle of Victor Hugo's majestic sweep of history and pathos brings to Broadway an epic of lives criss-crossing in an elegant, but somewhat random setting (246 0102).

Washington. The Western World (Glenbow). Abbey Theatre country legends what the Americans want to see in a form of the view of the Irish as unscrupulous charmers. Ends Oct 21.

Chicago. The Iceman Cometh (Goodman). The Goodman opens its new season with a revival of vintage O'Neill starring film actor Brian Dennehy. Ends Nov 4 (443 3800).

Tokyo. Kabuki. Performances at Kabuki-za (541 3131) feature two actors who have attracted new audiences to kabuki. The star of the 11 new Kabuki (Broadway). The magnificent spectacle of Victor Hugo's majestic sweep of history and pathos brings to Broadway an epic of lives criss-crossing in an elegant, but somewhat random setting (246 0102).

ARTS

delightful center through modern art from the late 1870s onwards. Included in the group of paintings lent by the Guggenheim in New York are 23 works from the remarkable Thannhauser collection, none of which have been back to Europe since they were bequeathed to the museum in 1940. Justin Thannhauser's group includes some fine Cézannes, two fantastic early French works, the 18th-century and the Fourteenth of July, and excellent examples of atmospheric other art of note (mainly French) you can think of a large group of works, come from the Peggy Guggenheim collection at the Palazzo Venier in Venice. Particularly prominent are the surrealists, her particular interest, among which is Max Ernst's fascinating The Antelope. Much of the pleasure of the exhibition comes from its sensitive layout by the architect, Gio Ponti. Ends December 9.

Palazzo Ducale, Titian. This exhibition organized jointly by the Venice local council, the Arts Ministry and the National Gallery in Washington, makes the 5th centenary of the painter's birth, the largest for over 50 years. More than 60 paintings are on show, lent by American, Russian and European museums.

Berlin. Martin-Gropius-Bau, Stresemannstrasse 116. Hanserck, Prussia, Germany and Europe. This exhibition in Berlin will be the first organized by the German History Museum. With around 1,000 pieces on loan from 250 different museums from all over Europe and the US, Otto von Bismarck, born 176 years ago in Schoenhausen, was the German Imperial Chancellor and Prussia's premier before he was elected as the young Kaiser Wilhelm II 100 years ago. The current political changes in Europe, particularly in East Germany, underline the importance of this exhibition, which also attempts to explain what happened after the revolution of 1848. Bismarck was at the center of several conflicts in relation to industrialization, social questions and the impetus towards forming nation-states in Europe. An accompanying program includes films, tours, music performances, films and video. Until November 25.

New York. Brooklyn Museum. From postcard landscapes to miniature of mature fantasies, this comprehensive exhibit makes the claim for Albert Pinkham Ryder as the first modern American painter. Ryder, born 1847, was a self-taught painter who lived in the shadow of the Hudson River. His subjects range from the mythological, arcanoid (endless wrestling nymphs and cherubs), to crowd scenes on local streets - on show is one of his best-known works in this series, the Fair at Poggio (1890) and religious works, such as The Seven Sacraments series; the latter lent by the Staatgalerie in Stuttgart. This exhibition's next stop, Cresset's lavish and gorgeous style owes much to Titian and Veronese, while his tendency to miniaturize the figures foreshadowed the delicate works of another Venetian, Tintoretto, and the dramatic use of light and shade is not unlike that of Goya, 50 years later. Ends November 10.

Düsseldorf. Kunstmuseum, Ehrenhof 5. Conrad Felixmüller. Around 80 paintings, 30 watercolors, drawings, 40 prints as well as five sketches by the expressionist painter are on display until October 28.

Frankfurt. Jüdisches Museum, Untermainkai 14/15. Expressionism and Exile from the most important private collection of Ludwig and Rosa Fischer. 117 paintings are exhibited. Among the artists are Kirchner, Heckel, Nolde and Mueller. Until October 10.

Hanover. Sprengel Museum. Kascha Kollwitz (1867-1945). Eleven plastic, 70 paintings, 70 prints of the politically radical artist are to be seen until October 28.

Essen. Museum Folkwang. Vincent Van Gogh and Modern Art. On the 100th anniversary of Van Gogh's death, this exhibition aims to display his influence on European modern art. With 50 of his own paintings and 120 by other artists it shows his impact on art in the period 1890-1914. Among the other artists are Matisse, Derain, de Vlaminck, Picasso, Klee, and others influenced by Van Gogh. The exhibition travels to Amsterdam in Nov. Ends Nov 4. Goethestrasse 41/30, Essen 1.

Tokyo. Bunka Museum. Hara Annual 10. Since its establishment 10 years ago, this museum has held an annual show of young and emerging Japanese artists - a good opportunity to observe new developments and directions in Japanese art. Opens September 25.

Berlin. Philharmonie Orchestra conducted by Kurt Sanderling plays Haydn, Shostakovich (Fri, Sat), Philharmonie.

Berlin Opera Orchestra conducted by Giuseppe Sinopoli with Dora Dymova (soprano), G. Stenham (violin), Nora Mendel and Ailer (viola). Schaeffels-Haus.

New York. Juilliard String Quartet. Schubert, Carter, Bartok (Mon). Juilliard Theater, Lincoln Center. Free (774 9770).

Czech Philharmonic conducted by Jiri Belohlavek with Andre Lucchesini (piano) play Martin Coprin, Stravinsky (Tue). Radio Philharmonic conducted by Gerard Schwarz with Maria Dichter (piano) play Mendels, Gershwin, Beethoven (Tue) Mendels Hall (366 1100).

Washington. Daniel Barenboim piano recital. Bach, Beethoven (Mon). Concert Hall, Kennedy Center (467 4600).

Chicago. Chicago Symphony Orchestra conducted by Sir Colin Davis play Bartok, Debussy, Shostakovich (Thurs). Orchestra Hall (435-3332).

Tokyo. The English Concert conducted by Trevor Pinnock. Bach, Cesti (Mon). Bach, Telemann (Tue). Vivaldi, Händel Memorial Hall (Thurs). (289 9999).

Amsterdam. Netherlands Philharmonic with Theodora Geras (violin), James Longman conducting. Dvorak, Vaughan Williams, Elgar (Fri). Concertgebouw (718 346).

Radio Philharmonic conducted by Edo de Waart, with Marthe Mahé (mezzo) and François Le Roux (baritone). Debussy, Ravel, Bartok (Sat). Concertgebouw (718 346).

Musica Antiqua Köln under Reinhard Goebel. Telemann, Bach, (Mon). Concertgebouw (718 346).

Brussels. Philippe Herschbach (violin) and David Golub (piano) in a Programme of French, Prokofiev and Schmitt. Palais des Beaux-Arts (Mon).

National Symphony Orchestra conducted by Metin Yildirim-Bostanovitch performing Barber, Shostakovich and Tchaikovsky. Palais des Beaux-Arts (Thurs).

Antwerp. Flemish Philharmonic and the Dutch Bach Chorus conducted by Frans Bruggen with Ruth Ziesak (sop), Guy de Mey (tenor) and Klaus Mariani (bass) perform Haydn's Die Schöpfung (Sun). De Singel (03-249 30 00).

October 5-11

MUSIC

London

Christina Ortiz (piano). Liszt, Scriabin, Brahms, Prokofiev, Villa-Lobos, Queen Elizabeth Hall (Sun) (071 235 5151; cc 071 235 5500).

Dmitri Hvorostovsky (baritone) with Mikhail Arcadiev (piano). Monteverdi, Pergolesi, Corelli, Stradella, Bellini, Donizetti. Queen Elizabeth Hall (Mon) (071 235 5151; cc 071 235 5500).

Royal Philharmonic Orchestra conducted by Sir Yehudi Menuhin, with Julian Lloyd Webber (cello), soloists and choir. Gershwin, Elgar, Lloyd Webber. Royal Festival Hall (Wed) (071 235 5500).

Orchestra Colonne conducted by Klaus Weite, Trio Henry. Beethoven (Mon). Salle Pleyel (4253977).

Nicolaï Gedda recital (Mon). Salle Gaveau (4253977).

Madame Sine Nonesse (Tue). Salle Gaveau (4253977).

Amsterdam. Netherlands Philharmonic with Theodora Geras (violin), James Longman conducting. Dvorak, Vaughan Williams, Elgar (Fri). Concertgebouw (718 346).

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Friday October 5 1990

How to join the ERM

FOR ALL its conversion to the market, the Labour Party turns as naturally to controls as a compass needle to the North Pole. That conclusion can be drawn from the promises of Messrs. Kinlock and Smith, at the Labour Party conference, to cut "very high interest rates" and introduce controls on credit. Such controls would be a mistake. But, with the UK on the verge of entering the exchange rate mechanism of the European Monetary System, they are at least the wrong solution to a real problem.

To the extent that interest rates are governed by the aim of maintaining a fixed exchange rate, they cannot also be targeted at domestic monetary conditions. Significant problems may well emerge in an economy whose credit conditions and inflationary expectations are so divergent from those in other members of the ERM. What was might there be of escaping from the dilemma?

One is to deny the need for any management of domestic demand. There is no demand management for Scotland, so why should there be for the UK within the European Community? An answer is that the UK labour market is more integrated than that of the EC. Another is that there are greater fiscal transfers within the UK. But the more fundamental reason is that the UK government is held directly accountable for even short term British prosperity. Indifference to the fate of the country is impossible.

Another credible option would be a more active fiscal policy. Unfortunately, the effects of unpredictable fiscal action on economic efficiency are likely to prove malign and on demand uncertain, especially when credit is so liberally available. More importantly, in the British economy of today, any conceivable year to year movement in the fiscal balance is likely to be dwarfed by the effects of any sizeable monetary expansion or contraction.

Yet another possibility is an improved exchange rate commitment. The ERM itself offers such possibilities, via the bands of 2.25 or 6 per cent on either side of the central rate and realignment. But to say that the potential disadvantage of a fixed exchange rate can be mitigated by making that rate uncertain is peculiar. The more uncertain the rate, the more limited, too, must be its potential advantages.

Unbearable costs

Moreover, even under wide bands, entry is likely to limit the downside risk in the short term, force appreciation and put downward pressure on interest rates. It might be possible to neutralise the monetary effects of the capital inflows, but the costs would probably become unbearable before the inflows ceased.

Time to grow up

THE Broadcasting Bill, which reaches its final stage in the Lords next week, has for the most part been improved during its legislative passage. It is now an unambitious piece of work which broadly meets the need to increase competitive forces without unnecessary risks to programme quality.

There is, however, one large exception to this judgment: a proposed amendment on broadcasting impartiality. In spirit, the original Bill preserved the status quo on this matter. The Independent Television Commission would be asked to draft a simple code requiring commercial TV companies to display "due impartiality" in covering news, current affairs and other matters of public interest. The BBC, not dealt with in the Bill, operates to a similar requirement.

This, however, was not good enough for those Conservative peers who would like British broadcasting to be as sympathetic to their own cause as is the press. They advocated a draconian series of proposals which, it is now clear, were withdrawn only in return for the government amendments published this week.

A detailed ITC code must now cover seven specific points, including impartiality "as respects individual issues" and the timing and prominence of any programme designed to compensate for bias.

Possible litigation

These proposals are unwelcome. It would be in theory possible for an individual to go to court, either before or after a programme, to demand the airing of a rival view, however

Today, the risk of pressure to reduce interest rates seems small and may even look attractive. Nor should the pressure soon be excessive: the current account deficit and the divergence in UK inflation from levels in other members in the ERM will see to that. The yield gap *vis-à-vis* a country like Germany may even have to be larger than the government wants, not smaller than the economy needs.

Credit controls

None the less, entry into the ERM is not a policy for just the next year or so. Between the beginning of 1985 and July 1989, broad money grew by 37 per cent in West Germany, but by 126 per cent in the UK. Yet throughout that entire period nominal interest rates in the UK were higher, sometimes vastly higher than in Germany. The danger remains that another such expansion will start once the economy has slowed and interest rates have fallen.

How could this be avoided? This is where the idea of credit controls comes in. But controls on the supply of credit would be ineffective, without exchange controls to back them up; they are always unjust, and most importantly, their subsequent liberalisation would just repeat the difficulties of the past decade. To go through the pain of liberalisation once was a misfortune. To go through it twice would be worse than carelessness.

Controls on borrowers are the obvious alternative. Allegedly, prudential limits on borrowing might, for example, be imposed. But confusion of prudential regulation with monetary control seems dishonest. What needs to be done, instead, is to tackle the incentives to borrow, above all in the housing sector.

The net worth of the housing stock (some £740bn at the end of 1988) needs to be lowered, along with the prospects for future gains. Mortgage interest relief should be withdrawn, property taxation re-imposed, planning controls on housing liberalised and taxation imposed on realised capital gains in owner occupied housing (including via equity withdrawal).

The fundamental point is that entry into the ERM is no superficial change in the management of the UK economy. Wage behaviour will need to become German. So too will borrowing, not merely in the long run, but even during the period of adjustment to entry into the mechanism. Labour may have leaped to undesirable thoughts of credit controls, but the Conservatives have no thoughts on the subject at all. But one at least is obvious. If the UK is to fit comfortably within the ERM, the middle class will have to abandon the conviction that the Englishman's home is not his castle but his gold mine.

William Dawkins and John Wyles on the alliance between Fiat and CGE

Very few of the visitors to the Paris Motor Show on Tuesday probably thought to ask themselves why Fiat, the Italian car maker, had sent along all three of its top men: the president Agnelli brothers plus Mr Cesare Romiti, Fiat's managing director. Certainly, nobody saw the trio from Turin slip off discreetly with Mr Pierre Suard, chairman of Compagnie Générale d'Electricité (CGE), the French telecommunications and engineering giant.

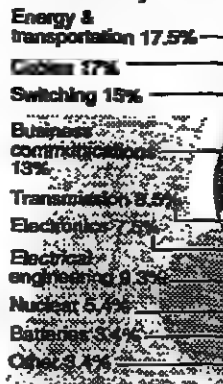
It was only yesterday that the purpose of their meeting became clear, with the announcement of an extraordinary pooling of interests between Europe's largest supplier of telecommunications and railway equipment on the one side and its third-largest car maker on the other. They will take minority stakes in each other and swap control of three businesses: Fiat's telecommunications and rail equipment interests going to CGE and the French group's car battery making division likely to go to Fiat in the next few months. Further ahead, the pair agreed to create a group, 50 per cent owned by each, to explore further collaboration across a wide range of technologies, including artificial intelligence, robotics, industrial components, metallurgy and aviation, among others.

The deal seems partly motivated by the two companies' feeling that they can only be strengthened by such a link-up as the European Community enters the last straight to the more competitive world of 1992. "Our common vision of the future of European industry played a significant part in bringing these negotiations to a conclusion," said Mr Suard.

More immediately, the accord will allow Fiat to focus on its core car-

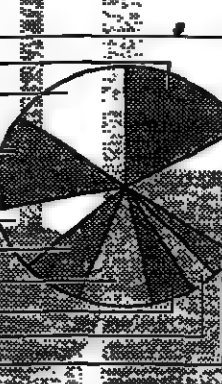
CGE Group

1989 sales by sector



Fiat

1989 sales by sector



making business and CGE to continue to build up telecommunications, which has accounted for just over 60 per cent of its turnover since its acquisition four years ago of Fiat's European telecommunications equipment businesses.

The loose ends of the agreement, the fruit of contacts initiated several months ago by Mr Giorgio Frasca, chairman of Fiat's French offshoot,

should be tied up by the end of the year. If all goes to plan, CGE will become one of Fiat's large shareholders, while the Italian car maker will be CGE's second stakeholder by a small margin behind the Société Générale bank, owner of 6.4 per cent.

The asset swap at the centre of the deal, under which Alcatel, CGE's telecommunications offshoot and its main source of business, takes control of

Fiat's Telettra telecommunications subsidiary has logic. It will give Alcatel second position in the FF94bn world cable transmission market after the US giant AT&T. It also brings Alcatel level with NEC of Japan in the FF36bn market for microwave transmission equipment. This is a blow for Fujitsu of Japan and Siemens of Germany, formerly Alcatel's nearest competitors in transmission equip-

ment and now left far behind. Telettra is well represented just where Alcatel is weak: in Italy and Spain. While Alcatel is strong in the supply of telephone exchanges, there, it is only barely represented in transmission equipment and is now set to double its sales in a market predicted to be growing at least twice as fast as the European average.

Fiat's railway equipment arm, Ferroviaria, fits almost as neatly with GEC Alsthom, the French group's second most important business. The deal will bring Ferroviaria's high-speed train alongside the celebrated TGV A Grand Vitess used by GEC Alsthom, as well as uniting two big suppliers of rolling stock for the Channel tunnel.

The final brick in the edifice is the transfer to Fiat of a controlling stake in the Compagnie Européenne d'Automatisme, owner of Chronos car batteries. This turns the Italian car group into Europe's leading supplier of lead acid car batteries, through its Magneti Marelli automotive components subsidiary.

The big question is how much further the two groups will collaborate. For CGE the Italian link provides a chance to bring a loyal supporter to its otherwise fragmented shareholding structure, in which there is only one other outside investor with more than 5 per cent. But Mr Suard says he does not wish to go beyond the cross-shareholding announced yesterday.

More than that, the general theme behind their technology collaboration will be to pool know-how in areas of research where Fiat and CGE have common needs but do not directly compete. Both sides' technology shopping list is long and varied, suggesting that this ought just to be the first step in a deepening alliance.

managers a year ago with the sober observation that Fiat was becoming "sad, laggardly and bureaucratic". The road to improvement and future strength, he has decided, will be built on making the market strength in Europe, staying technologically excellent and continued financial solidity, forging selected international relationships of the CGE-type which may yet be supplemented by a deal with Chrysler, developing human resources and diversified strength across the group.

Pride of place, however, has been given to the concept of "total quality" which borrows heavily from Japanese practices. It seeks the best possible product at the lowest possible cost by reforming relationships and practices within the company, and between the company and its suppliers.

The search for savings goes wider than this. It also embraces ambitious and politically courageous, low-cost measures in Europe, staying technologically excellent and continued financial solidity, forging selected international relationships of the CGE-type which may yet be supplemented by a deal with Chrysler, developing human resources and diversified strength across the group.

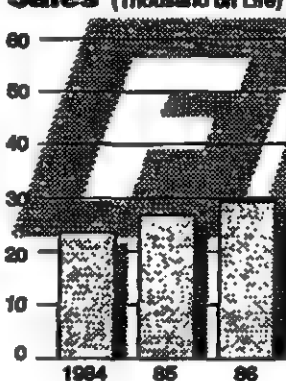
The plan assumes a much slower growth in revenues than the 15 per cent annual average increase of the past four years and a stronger downward pressure because of sharper price competition. With a cash surplus of more than £3,000bn at mid-year, Fiat's cash position is enormously strong, and needs to remain so, since the company's cash flow will not be sufficient to sustain investment needs over the next three to four years.

Mr Romiti betrays not a moment's anxiety in public about the safety of his strategy for meeting the Japanese challenge. Some believe that he may stumble badly on the road to Yelabanga, where Fiat will build 600,000 cars a year with the Soviets.

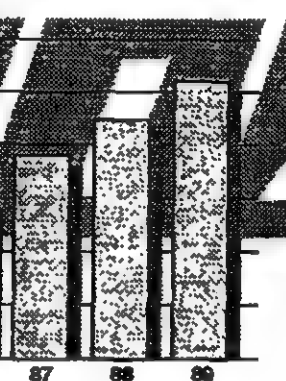
Logical link-up of European giants

Fiat chooses France

Sales (Thousand in Lire)



Income (Thousand in Lire)



within public companies. The result is at least two lost opportunities for Italy's public sector. All possibility of a merger of Telettra's transmission manufacturing activities with Italy's telecommunications equipment manufacturing activities is now lost. Three years after Mr Romiti tore up a draft agreement with IRI, Italy's parent, on such a merger because he feared political interference in the management of the joint venture.

Second, Finmeccanica's plans for building an integrated railway equipment manufacturer which would have included the Fiat company will have to go back to the drawing board.

For Fiat, the deal with CGE has considerable promise. After the abandonment of the merger with IRI, it has been clear that Fiat needs to find Telettra a strong foreign partner and it has done so within a framework which could also cater to the needs of its other activities.

As Mr Romiti made clear yesterday, the joint holding company with CGE which will aim at new technological initiatives could bring powerful extra resources to bear in the development of new composite materials, of artificial intelligence technologies and of telecommunications services to be applied to transport. This in itself is a clear indicator that Fiat has now concluded that it cannot stand alone as a disparate conglomerate and ensure its position in the very difficult decade which lies ahead.

All the main challenges centre on the future of its passenger car business which has achieved a marvelous recovery in the 1980s but which faces some particular problems if it is to remain a leading force by the year 2000.

Most of its production is based in Italy, where costs are rising at a faster rate than in other auto-producing countries.

Fiat car sales lack geographical spread. Last year it sold only 168,500 units out of 2,264m outside Europe. It depends on the Italian market for 65 to 70 per cent of its total car sales. Its dominant position is already being eroded by competition from other European suppliers and could fall sharply when restrictions are lifted which currently keep Japanese sales down to less than 1 per cent of the market.

Quality problems have kept Fiat weak in several European markets, notably the UK.

It remains heavily dependent for its profits on high-volume low-margin small cars.

Mr Romiti is as determined as his boss, Mr Gianni Agnelli, that Fiat should remain an independent producer, but this does not exclude a host of catholic collaborative arrangements, including with the Japanese in the components sector. These form part of a wider strategy which Mr Romiti placed before his

usually a cold appreciation of her intellectual precision. Since she has already had virtual control of France's European policy as adviser to President Mitterrand and head of the administration coordinating committee, she may find it easier than Cresson to get her way.

She also has the advantage of believing in the European Community. Cresson doesn't.

NUJ's ballot season

The main union for British newspaper people, the National Union of Journalists, has produced a constitutional curiosity which even the architects of the Conservative labour laws could not have devised. Harry Conroy, general secretary, faced periodic re-election until last year. The result was his defeat by Steve Turner, leader of the union's branch at the tabloid Daily Mirror. It was only the second time the general secretary of a TUC union had been defeated in a ballot under the new laws requiring periodic re-election, and was a great shock for the top brass.

But Turner will not be taking up the job at present. He has failed to reach agreement with the union's national executive on the terms of his employment. Drawing from the Mirror style-book, Turner says that in the "stab-in-the-back" political atmosphere which occasionally pervades the journalists' union, he needs assurances that he will receive severance terms as generous as those available to his predecessors if he is forced out of office prematurely.

His executive has decided to call a fresh election. There is, however, nothing to stop Turner putting himself forward as a candidate again. And if he should win, and fail to agree terms for taking on the job, the cycle could, in theory, continue.

Another of the Government's labour law reforms allows unions funds for their ballots.

OBSERVER

James McDermott, who has been the chief executive of Keefe, Bruyette & Woods, a boutique investment firm which specialises in bank securities, has just been elevated from vice-president to president of the business. That makes him the front runner for the job of chief executive of the bank. Charles Lott, aged 62, who takes on the chairmanship from Gene Bruyette in the same reshuffle.

The moves are all part of a generation change at Keefe, Bruyette, where the people who founded the firm 35 years ago are reaching retirement age. McDermott, aged 39, joined the firm in 1977 after working for Chase Manhattan Bank. Over the past decade he has built the research operation up into one of the most widely quoted in the industry.

A self-styled "player-manager", he says he is keen to continue researching the money centre banks. His new responsibilities will include coordinating the firm's research, corporate finance, and sales and trading activities.

In spite of the current deep gloom in the US banking industry, he remains enthusiastic about its prospects over the next five to 10 years. He forecasts the sector will emerge from the watersheds restructured and much more able to hold its own in the global marketplace.



"I've come to read your electricity meter and put lots of money in it."

incongruous one. The free market Pines-Valenciennes is teaming up with the thoroughly interventionist Cresson. When she was industry minister six years ago he clashed vigorously with her over the collapse of his engineering subsidiary Cresson-Lohr.

But times change. She will now head a new Schneider subsidiary intended to promote the group's activities, and will, we are told, "facilitate its contacts with people who count at the very highest level".

Cresson has plenty of fans among the ranks of French businessmen who do not necessarily admire her socialist politics - not least Jacques Chirac, the chairman of Peugeot, who shares her views on restraining Japanese car imports.

He speaks warmly of her courage in attacking some of the plumper French sacred cows.

Elizabeth Guigou, her successor as minister for European Affairs, attracts a different form of admiration -

With fish

Cardio-vascular disease is just as baffling as cancer and kills far more people, says an Indian scientist called Vijay Kakkar.

Worldwide, over half of all deaths are from the disease. Fourth-fifths of them begin with a thrombosis or blood clot.

Professor Kakkar is director of the newly-opened Thrombosis Research Institute in Chelsea, London, which, with a team of 51, is the first of its kind in Europe, he claims.

He has coaxed two government departments, two drug companies, and a medical charity, as well as private donors, to help fund it.

The centre also has links with another 30 centres in Europe.

A medical scientist with King's College medical school in London, Kakkar has been studying thrombosis since the late-1960s.

His research team's work includes a way of radio-actively labelling clots which "enabled us to define the magnitude of the problem".

Meanwhile, he puts some of his faith in eating fish twice a week. If his wife had her way it would be twice a day.



"A CONTEMPTIBLE SALE?"

smirked the Chairman. "A STOCK CLEARANCE" replied Clarissa Corbishy.

Since Miss Corbishy's niece, Clarissa, joined the firm she's put the chairman in his place once or twice. She runs her gallery in Golden Square, 'the young moderns' as Miss Corbishy calls them. The Chairman calls it the Contemtable Gallery when he wants to upset someone. Usually it's Clarissa. Phase II of the Chairman's master plan moves the Golden Square gallery in with our rather more traditional gallery in Vigo Street (The young moderns meet the living dead!) so he has given permission for the following:

All stock reduced: Up to 75% discount off some designs.

i.e. 6' x 4' £50.7' x 5' £75

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By Joe Rogaly

Easier cross-border

From Mr. Herbert H. Myers.

Sir, in response to Mr. Bernard Keefe's (Letters, September 3), there is a more convenient way of making cross-border payments. Frankfurt's foreign currency disbursement system enables companies to initiate or make payments in more than 60 currencies from their offices using their personal computer or mainframe system installed with custom software.

Thus, companies can bring

The Liberal Democrats are more convincingly capitalist than Labour, but the gulf is not wide. Labour is the more thoroughly determined of the two not to be outflanked on the right when it comes to defence policy but, again, there is not a great deal in it. The Labour policies on the environment, as

dent central bank, a proper structure for local government, and the incorporation of the European Convention of Human rights into British law. All this fits, says the author, Frank Vibert, within "the perspective of the conservative tradition."

The Labour party is now

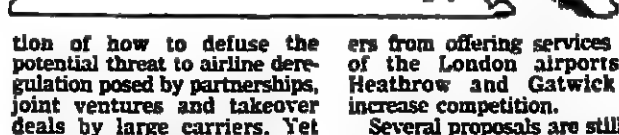
ity ever again. "Yes. But if there is no other way out, we'll have to accept that. One of the main objectives of the Conservatives argued that yesterday's "relaxed approach" by the leadership to pressure for debate on electoral reform was advantageous. "It may attract more voters to the Conservatives in the coming debate. We cannot lose," Mr Hattersley specifically ruled deals out yesterday. Yet the list of constituencies Labour must win may turn out to be more than they can handle. A demonstration of pride. The day after the next election Labour might be split down the middle on this. Some say they would rather have more of Mrs Thatcher than a simple proportional representation system. It is common. Some delegates have the passion for reform that once might have been applied to say, nuclear disarmament. We shall see.

Paul Betts and Tim Dickson
discuss how bureaucrats and
airlines are at odds over slots

But the EC believes that a fairer system of distributing slots at congested hub airports in Europe is essential if Europe is to develop a genuinely competitive air transport industry. Up to now, the slot issue has been overshadowed in Brussels by merger policy and the ques-

consultations with EC governments and the airline industry, and is planning to present a draft code of conduct on slot allocation to his fellow Commissioners before Christmas. The UK government has ordered its own review of slots and is considering changes to the rules restricting new carrier

Yet Brussels appears intent on forging ahead with its controversial airport slot allocation code. The stage is set for a long and noisy confrontation.



Easier cross-border payments

From Mr Herbert H. Myers.

Sir, in response to Mr Bernard Keefe (Letters, September 3), there is a more convenient way of making cross-border payments. Worklink's foreign currency disbursement system enables companies to initiate or make payments in more than 60 currencies from their offices using their personal computer or mainframe system installed with custom software.

This computer can bring their payments per

in-house giving them control and significant cost savings. Customers can use multi-currency cheques, stop payments, phone requests and 24-hour service are all provided at no cost to current clients.

Herbert H. Myers, senior vice-president, Citicorp Global Payments Products, Kensington High Street,

north and east into the Midlands and south Wales. An arbitrary north-south divide is too simplistic to capture these realities.

Improved road access, more efficient manufacturing and inward investment have all benefited regions which might be considered by many to be in the north. Further, the decline in the northern region, as described in the editorial, took place largely before 1985. Since then, the region has maintained its share of UK economic activity.

This is not to deny that pro-

dubious.

There are already efforts at regional development agencies which have had considerable success in attracting investment and making companies aware of their advantages. It is an issue of their efforts, as well as those businesses which already have the pleasure of being based outside the south, to suggest that major new intentions are needed.

Bridget Rosewell,
*joint managing director,
BSL Business Strategies,
10 Kendrick Mews, SW7*

MIDLAND MONTAGU IS THE INTERNATIONAL AND INVESTMENT BANKING ARM OF MIDLAND GROUP. ISSUED BY MIDLAND BANK plc.
A MEMBER OF IMRO AND APLD.

From Mr. Herbert H. Myers.
Sir, in response to Mr. Bernard Keefe (Letters, September 15), there is a more convenient way of making cross-border payments. WorldLink's foreign currency disbursement system enables companies to initiate or make payments in more than 60 currencies from their personal office using their personal computer or mainframe system installed with custom software. This can reduce the time and

their payments in-house giving them control and significant cost savings. Costs multi-currency cheque stop payments, phone requests and 24-hour service are all provided cost to current clients. Herbert H. Myers, senior vice-president, Citicorp Global Payments Products, Kensington High Street,

Improved road access, more efficient manufacturing and inward investment have all benefited regions which might be considered by many to be in the north. Further, the decline in the northern region, described in the editorial, took place largely before 1985. Since then, the region has maintained its share of UK economic activity.

This is not to deny that pro-

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INTERNATIONAL COMPANIES AND FINANCE

BA chief pledges to fight for German market share

By David Buchan in Brussels

BRITISH AIRWAYS yesterday signalled its determination to try to stay in the lucrative German market, despite the announcement yesterday that national airlines of the war-time allies would lose their intra-German routes to Berlin by 1993.

Sir Colin Marshall, chief executive, said his airline, which keeps 700 people and 10 aircraft busy plying between various cities of the former West Germany and Berlin, had "established a considerable customer base and investment" over the past 40 years.

He hoped that continuing discussions with the German authorities "will allow us to continue our service and compete head to head with Lufthansa", the German carrier whose service to Berlin has only just started with this week's dissolution of allied control over that city.

Sir Colin noted that coincidentally full liberalisation of the EC air market is supposed to start in 1993.

BA has already complained



Sir Colin Marshall: seeks head to head competition

to the European Commission that Lufthansa's planned purchase of 26 per cent of Interflug, the former east German state carrier, will further solidify its domination of the German market.

However, on another regulatory issue, BA is pitted against the Commission which has expressed concern that the 20

per cent stakes held by BA and KLM in Sabena World Airlines (SWA) will restrict competition.

Speaking on the eve of a BA board meeting held in the Belgian capital, Sir Colin took a hard line, saying that any concessions over ceding slots to third parties at Brussels' Zaventem airport would be for Sabena to make, not a minority shareholder like BA.

"It would be illogical for BA to give away something it has 100 per cent of to protect a 20 per cent stake, he said.

Sir Colin called on the Commission to follow the UK Monopolies and Mergers Commission (MMC) in approving the BA link-up with Sabena.

The Gulf crisis meant that BA at the end of September was paying three times for fuel what it was paying two months earlier before the Iraqi invasion of Kuwait. Certain fare increases last week were "nowhere near enough" to cover this, though Sir Colin recognised that fares could not be jacked up overnight.

KLM shares plunge as profit drop is forecast

By Our Financial Staff

SHARES in KLM, the Dutch flag carrier, plunged by 12 per cent yesterday after the airline said sharply increasing fuel prices and insurance costs combined with unfavourable currency fluctuations could produce a "considerable loss" in 1990-91.

The shares fell Fl 2.50 to Fl 21.20, a low for the year and half their peak for the year. The fall depressed share prices generally on the Amsterdam Stock Exchange.

In the 1989-90 year ended March 31, KLM posted a net profit of Fl 340m (\$300m). However, along with several other European airlines, KLM has been hit by rising costs and exchange rate movements.

KLM's management said although the second quarter of 1990-91 would be positive, it would be below last year's profit of Fl 162.3m. The company is to give full results for the period from July to end-September on November 1.

In August, KLM reported a sharp drop in first-quarter net profits to Fl 41.4m from Fl 230.1m in the same period a year ago. The company said at the time results would result under pressure because of exchange rate developments and the costs of air congestion.

Yesterday, Mr Leo Scholten, analyst at brokerage Nachenius Duijck van Heel, said: "We had already reckoned with something like this as oil prices have gone so high. KLM will not be an isolated case among airlines."

KLM has joined British Airways in taking a 20 per cent each of the newly-formed Sabena World Airlines, part of Belgium's Sabena group, in a tie-up being examined by the European Commission.

Banks strike accord

RABOBANK Nederland, the Dutch co-operative bank, said it had forged a "strategic alliance" with France's Caisse Nationale de Crédit Agricole, AP-DJ reports.

Hanson announces disposal of Tucker Housewares for \$185m

By Martin Dickson in New York and John Thornhill in London

HANSON, the Anglo-American industrial conglomerate, is continuing to dispose of businesses it took on when it bought Kidde, as it announced yesterday it had sold Tucker Housewares for \$185m in cash.

Hanson has now realised \$718m from selling assets formerly belonging to Kidde. Three years ago Hanson bought the US conglomerate for \$1.6bn.

In New York, Hanson said it had sold Tucker because it had been presented with an offer which it felt was in the best interests of shareholders.

Tucker, which is based in Massachusetts, is the second largest manufacturer of plastic houseware goods in the US. It is to be bought by Mobil Corporation and will fit in well with the oil company's plastics division.

Mobil said it had initiated discussions with Hanson early this year and the addition of Tucker products positioned the company as a leading manufacturer of injection moulded products.

Mobil is a market leader in film extrusion household products - such as grocery sacks

and rubbish bags - and entered the durable plastic housewares market last year with products such as waste baskets and drink pitchers. It said the addition of Tucker would significantly strengthen its position in this market and broaden the scope of its products.

In the year to September 30 1989, Tucker made pre-tax profits of \$13m on sales of \$117.5m. Its net asset value is about \$65m. In the six months to March 31 Tucker increased its taxable profits to \$8.2m on sales of \$60m.

Oce-Van der Grinten down 9%

By Our Financial Staff

OCE-VAN der Grinten, the Dutch copier and business system maker, said its net profit in the third quarter ended August 31 fell 9.3 per cent to Fl 17.6m (\$10.3m) from Fl 19.4m in the year-earlier period.

For the first nine months, Oce posted a net profit of Fl 60.6m, only slightly higher than the Fl 60.3m net profit it had in the first nine months a

year ago. Oce attributed the latest decline to unfavourable exchange rate movements and to start-up costs associated with the offering of new generation machines.

In spite of the lower profits, Oce said it would match its 1989 net profits of Fl 64.7m, because of "the good reception" of its new products. The recently introduced Oce-2400, a high-volume copier machine, is

expected to boost sales from the fourth quarter onwards.

Third-quarter turnover rose 2.5 per cent to Fl 549.1m from Fl 535.5m a year ago. For the first nine months of the year, turnover amounted to Fl 1.7bn, up 11.9 per cent from the year-earlier level of Fl 1.53bn.

The company is paying an unchanged interim dividend of Fl 0.90.

Dividend unchanged as Adia posts SFr64m net

By William Dufforce in Geneva

ADIA SA, the holding company for the Swiss services group, yesterday posted net earnings of SFr64.5m (\$60.1m) for the year ending June 30. The board proposes to pay a dividend of SFr27.50 per bearer share and SFr5.50 per participation certificate.

This, it said, amounted to an unchanged dividend after taking into account the share split and capital increase effected last year when Adia merged its employment agency with Inspectorate, the quality control and computer leasing company.

Consolidated earnings for the 1990 calendar year were expected to be slightly lower than the SFr201m posted last year - which in turn was well below the SFr240m-SFr250m

range Adia had projected for 1989 at the time of the merger.

The economic slowdown in markets such as the UK and the US was reducing demand for personnel recruitment and temporary help services. However, Adia said it was continuing to invest in markets with promise, such as temporary help in Germany, and inspection and security services.

The programme for restructuring the European computer leasing services, which made a net loss of SFr29m last year, was showing encouraging results.

At the first-half stage, Adia reported a 12 per cent increase to SFr3.1bn in group revenues and said the European computer business had shown a small profit.

Oerlikon sees SFr70m loss this year

OERLIKON-BURRLE Holding, the Swiss diversified industrial and consumer products group, has forecast a group operating loss for 1990 of around SFr70m, AP-DJ reports.

It also predicted that its group sales growth for the year could be held to less than 10 per cent because some arms deliveries must be held up due to the Gulf crisis. In the first eight months of the year group sales rose 17 per cent to SFr2.9bn.

For all 1989, Oerlikon had a SFr42m loss on group sales of SFr4.75bn. The company, which recently changed top management, said it intends to complete its ongoing restructuring as soon as possible.

Oerlikon has long had troubles with its military sector and certain industrial operations.

Storebrand hit by lower income on investments

By Karen Fosell in Oslo

STOREBRAND, one of Norway's top three insurance companies, saw net profits before extraordinary items and allocations fall to Nkr614m (\$102.3m) from Nkr670m in the first eight months of this year. Storebrand, which is to merge with UNI Forsikring, another of Norway's top three insurance companies, said lower investment income in the second four-month period of the year meant profits were weaker, at Nkr208m, than in the first four months, when they reached Nkr406m.

Non-life insurance business, domestic and international, slipped to Nkr672m from Nkr764m in the eight-month period. Storebrand attributed this to high claims after a number of natural catastrophes and, again, lower investment income. Investment income fell by Nkr100m to Nkr705m.

Storebrand Finans, the group's finance arm which is being wound down, reduced losses to Nkr49m from Nkr150m last year. The group (excluding Storebrand Liv) saw its realised capital gains slide by Nkr164m to Nkr138m, while unrealised gains on securities plunged by Nkr141m to Nkr59m.

Operating profit for group life insurance business fell slightly to Nkr1,077m. Realised gains on securities slipped to Nkr284m from Nkr324m, while unrealised gains fell by Nkr133m to Nkr465m.

UNI Forsikring, meanwhile, reported a rise in operating income to Nkr6,795m from Nkr6,465m last year. Profit for UNI Skade (damage) was up to Nkr321m from Nkr282, while its solvency margin (solvency capital expressed as a percentage of premium for own account) rose from 48 to 54 per cent.

Group financial income rose by Nkr16m to Nkr2,940m, after premium fund allocations. Earnings on sales of securities hit Nkr523m.

UNI Liv premiums were up 13 per cent to Nkr1,515m in the eight-month period. However, UNI's international business reported a loss of Nkr70m.

Capital markets lift Mediobanca by nearly 43%

MEDIOBANCA, the leading Italian merchant bank, raised net profits by almost 43 per cent to L222.1bn (US\$200m) in the financial year ended June 30 from L183.4bn in 1988-89, writes Halg Simonian in Milan.

Accruals and depreciations on its portfolio amounted to L93.1bn against L87.2bn in 1988-89, while funds at the bank's disposal rose by 21.8 per cent to L15,660bn.

The earnings increase largely reflects its excellent performance in capital market activities in the first months of the 1989-90 financial year.

The current year may prove considerably harder going. Although corporate lending is likely to continue rising strongly, Mediobanca's corporate finance team will be pushed to repeat such vintage earnings, analysts say.

The bank is paying an unaudited dividend of L300 a share.

UBF blames higher interest rates for fall

By Enrique Tessieri in Helsinki

UNION BANK of Finland (UBF), one of the country's two largest commercial banks, yesterday announced a sharp drop in its pre-tax profits for the first eight months of this year to FM465m (\$126.3m) from FM944m a year earlier.

Mr Ahti Hirvonen, chairman, blamed high Helsinki interbank offered rates (Helibor), as well as on the weakening performance of the national economy. He also expressed the need for Finnish banks to forge closer co-operation with insurance companies to continue to lower overheads.

"We are going through some serious restructuring (to increase profitability and bring overheads down). We have closed down 100 branch offices and dismissed around 1,000 people during the past 15 to 18 months," said Mr Björn Wahl-

roos, deputy chief general manager. He said that credit losses at all Finnish banks would increase in 1990 from the FM1.8bn notched up last year. Consolidated credit write-offs for UBF during the January-August period grew to FM264m from FM261m. Credit losses for the bank for 1990 are expected to remain at last year's level of FM641m, UBF sources estimated.

Income from financing operations fell by 6 per cent to FM1,677m. Group funding suffered a 3 per cent drop to FM4,165m.

Consolidated return on equity took a sharp drop to 3.2 per cent from 10.5 per cent, and return on assets was 0.24 per cent, against 0.79 per cent a year ago. Earnings per share for the group plunged to FM0.73 from FM2.40.

All these securities having been sold, this announcement appears as a matter of record only.

NEW ISSUE

October, 1990



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Gold Mining Companies' Quarterly Reports for the quarter ended 30 September 1990

All companies are incorporated in the Republic of South Africa

Driefontein Consolidated

Driefontein Consolidated Limited
(Registration No. 66/0489/06)

ISSUED CAPITAL: 204 000 000 shares of 50 cents each, fully paid.

	Quarter ended 30 September 1990	Quarter ended 30 June 1990
OPERATING RESULTS		
Gold - East Driefontein		
Ore milled (t)	695 888	720 000
Gold produced (kg)	5 685.3	6 026.0
Yield (g/t)	8.1	8.4
Price received (R/kg)	51 754	51 482
Revenue (R/milled)	296.41	303.84
Cost (R/milled)	159.79	144.05
Profit (R/milled)	96.62	119.79
Revenue (R000)	178 205	189 985
Cost (R000)	131 031	103 726
Profit (R000)	67 194	86 249
Gold - West Driefontein		
Ore milled (t)	705 000	705 000
Gold produced (kg)	7 234.0	6 624.4
Yield (g/t)	10.3	9.4
Price received (R/kg)	51 745	51 315
Revenue (R/milled)	506.18	294.59
Cost (R/milled)	172.29	171.00
Profit (R/milled)	159.89	123.59
Revenue (R000)	329 957	307 686
Cost (R000)	121 468	120 552
Profit (R000)	108 494	87 134
Reclamation plant - West Driefontein		
Tonnes (t)	600 000	600 000
Gold produced (kg)	464.5	528.7
Yield (g/t)	0.8	0.5
Revenue (R000)	16 597	19 325
Cost (R000)	5 679	3 542
Profit (R000)	10 918	6 783

FINANCIAL RESULTS (R000)		
Working profit Gold and reclamation plant	186 595	180 165
System royalties	1 646	1 430
Net mining revenue	188 241	181 595
Net sundry revenue (group)	13 405	13 747
Recovery under loss of profits insurance	1 196	—
Profit before tax and State's share of profit	203 790	195 342
Tax and State's share of profit	94 410	61 870
Profit after tax and State's share of profit	109 380	133 472
Capital expenditure	45 234	51 514
Dividend	—	163 300

CAPITAL EXPENDITURE. The unexpended balance of authorised capital expenditure at 30 September 1990 was R844.5 million.

DIVIDEND. A dividend (No. 54) of 80 cents per share was declared on 12 June 1990, and was paid to members on 8 August 1990.

EAST DRIEFONTEIN

Production. Both the tonnage and the grade of the ore milled during the quarter were adversely affected by a rock bolt problem at the No. 2 Shaft-8. This was rectified shortly after it was imported early in August.

No. 3 Sub-Vertical Shaft-8. The installation of the rock and second main winders is complete as is the stripping of staking equipment in the shaft and headgear.

No. 1 Tertiary Shaft-8. The stripping of the headgear portion of this shaft was completed and support and lining of the excavation continues.

No. 7 Ventilation Shaft-8. Site preparation for this shaft which will serve the No. 5 Shaft-8 area commenced.

WEST DRIEFONTEIN

No. 9 Sub-Vertical Shaft-W. The excavation on 21 level of the rock and second main winder chambers continues while that of the north main winder chamber is approaching completion. The rib boring of rock passes between 21 and 20 levels progressed well and the excavation of the headgear dome on 21 level commenced.

On 22 level civil work for the installation of the lifts and platform winder is in progress.

Development on 23 level towards the site of the No. 9 Shaft-W continues.

On behalf of the board

C. T. Panton
A. H. Munro } Directors

4 October 1990

Kloof

Kloof Gold Mining Company Limited
(Registration No. 64/0462/06)

ISSUED CAPITAL: 121 100 000 shares of 25 cents each, fully paid.

	Quarter ended 30 September 1990	Quarter ended 30 June 1990
OPERATING RESULTS		
Gold		
Ore milled (t)	546 000	540 000
Gold produced (kg)	6 691.3	6 276.5
Yield (g/t)	12.4	11.6
Price received (R/kg)	51 765	51 411
Revenue (R/milled)	394.26	305.64
Cost (R/milled)	215.39	214.20
Profit (R/milled)	178.86	151.44
Revenue (R000)	212 899	197 485
Cost (R000)	116 263	115 670
Profit (R000)	96 636	81 775
FINANCIAL RESULTS (R000)		
Working profit Gold	96 636	81 775
Net sundry revenue	1 275	6 085
Profit before tax and State's share of profit	97 911	87 860
Tax and State's share of profit	566	(27 814)
Profit after tax and State's share of profit	97 345	115 674
Capital expenditure	130 761	135 749
Dividend	—	54 499
CAPITAL EXPENDITURE		
(a) The unexpended balance of authorised capital expenditure at 30 September 1990 was R711.6 million.		
(b) Included in the total of capital expenditure for the quarter ended 30 September 1990 is an amount of R89.0 million in respect of loanwork.		
DIVIDEND. A dividend (No. 41) of 45 cents per share was declared on 12 June 1990, and was paid to members on 8 August 1990.		
KLOOF		
No. 4 Sub-Vertical Shaft-K. The excavation of the intermediate pump chamber was completed and sinking recommenced during August 1990. The shaft was sunk 49 metres to a depth of 805 metres below the collar on 25 level.		
No. 4 Sub-Vertical Ventilation Shaft-K. The ventilation hole has been named to a diameter of 4.4 metres over a total length of 565 metres.		
LIBENDOWN		
No. 1 Sub-Vertical Shaft-L. The changeover to underground hoisting arrangements was completed and sinking recommenced in July 1990. The shaft was sunk to a depth of 444 metres below the collar on 25 level and the 29 level station established.		
Preparation for Production		
Metallurgical Plant. All major construction work at the plant was completed. Commissioning was started by loading the systems and testing the equipment with either water or waste rock.		
Underground. The preparation for stopping on the VCR in the 67 Longwall and three other raises continues. The ore produced was stockpiled on surface.		

On behalf of the board

A. H. Munro
M. J. Tagg } Directors

4 October 1990

Libanon

Libanon Gold Mining Company Limited
(Registration No. 05/0081/06)

ISSUED CAPITAL: 40 000 000 shares of 20 cents each, fully paid.

	Quarter ended 30 September 1990	Quarter ended 30 June 1990
OPERATING RESULTS		
Gold		
Ore milled (t)	495 000	425 000
Gold produced (kg)	2 047.2	1 757.7
Yield (g/t)	4.1	4.1
Price received (R/kg)	51 841	51 444
Revenue (R/milled)	190.08	130.17
Cost (R/milled)	142.04	143.25
Profit/(Loss) (R/milled)	8.04	(13.08)
Revenue (R000)	65 287	55 323
Cost (R000)	61 789	60 887
Profit/(Loss) (R000)	3 498	(5 564)
FINANCIAL RESULTS (R000)		
Working profit/(Loss) Gold	3 498	(5 564)
Net sundry revenue	874	980
Recovery under loss of profits insurance	630	3 000
Profit before tax	5 002	422
Tax	791	3 045
Profit/(Loss) after tax	4 211	(2 623)
Capital expenditure	2 388	4 785
Dividend	—	—

CAPITAL EXPENDITURE. The unexpended balance of authorised capital expenditure at 30 September 1990 was R55.8 million.

DIVIDEND. No final dividend was declared.

On behalf of the board

M. J. Tagg
A. H. Munro } Directors

4 October 1990

Venterspost

Venterspost Gold Mining Company Limited
(Registration No. 05/0532/06)

ISSUED CAPITAL: 20 200 000 ordinary shares of 25 cents each, fully paid.
29 800 000 deferred shares of 25 cents each, fully paid.

	Quarter ended 30 September 1990	Quarter ended 30 June 1990
OPERATING RESULTS		
Gold		
Ore milled (t)	390 000	390 000
Gold produced (kg)	1 349.3	1 376.6
Yield (g/t)	3.5	3.5
Price received (R/kg)	51 753	51 573
Revenue (R/milled)	111.61	111.56
Cost (R/milled)	135.91	134.96
Loss (R/milled)	(24.30)	(23.40)
Revenue (R000)	43 530	43 507
Cost (R000)	53 086	52 633
Loss (R000)	(9 476)	(9 126)
FINANCIAL RESULTS (R000)		
Working loss Gold	(9 476)	(9 126)
Net sundry revenue	4 999	6 359
Recovery under loss of profits insurance	155	250
Loss before tax	(4 322)	(3 517)
Tax	—	(1 764)
Loss after tax	(4 322)	(753)
Capital expenditure	616	1 857
Existing mine	10 512	11 545
CAPITAL EXPENDITURE. The unexpended balance of authorised capital expenditure at 30 September 1990 was R162.8 million.		
DIVIDEND. No final dividend was declared.		
No. 4 SHAFT COMPLEX. The shaft was sunk 150 metres to a depth of 778 metres below collar. The cutting of the 7 and 8 level stations and the associated development was completed. 9 level station has been cut and the associated development is in progress. The 10 level haulage advanced 537 metres to a total of 3 025 metres and is now 90 per cent complete, while the 24 level haulage advanced 285 metres to a total of 796 metres and is now 25 per cent complete.		

On behalf of the board

M. J. Tagg
A. H. Munro } Directors

4 October 1990

Doornfontein

Doornfontein Gold Mining Company Limited
(Registration No. 05/2470/06)

ISSUED CAPITAL: 40 000 000 shares of 25 cents each, fully paid.

	Quarter ended 30 September 1990	Quarter ended 30 June 1990
OPERATING RESULTS		
Gold		
Ore milled (t)	590 000	550 000
Gold produced (kg)	2 012.2	1 950.0
Yield (g/t)	3.4	3.5
Price received (R/kg)	51 725	51 395
Revenue (R/milled)	163.87	161.07
Cost (R/milled)	183.06	168.87
Loss (R/milled)	(19.19)	(7.80)
Revenue (R000)	62 989	62 818
Cost (R000)	71 401	65 850
Loss (R000)	(7 412)	(3 032)
FINANCIAL RESULTS (R000)		
Working loss Gold	(7 412)	(3 032)
Net sundry revenue	781	1 310
Loss before tax	(6 631)	(1 722)
Tax	—	730
Loss after tax	(6 631)	(2 452)
Capital expenditure	5 915	10 538
CAPITAL EXPENDITURE. The unexpended balance of authorised capital expenditure at 30 September 1990 was R77.2 million.		
DIVIDEND. No final dividend was declared.		

On behalf of the board

M. J. Tagg
A. H. Munro } Directors

4 October 1990

Vlakfontein

Vlakfontein Gold Mining Company Limited
(Registration No. 05/0615/06)

ISSUED CAPITAL: 6 800 000 shares of 20 cents each, fully paid.

	Quarter ended 30 September 1990	Quarter ended 30 June 1990
OPERATING RESULTS		
Gold - Surface sources		
Ore milled:		
from surface dumps (t)	29 500	77 859
from outside sources (t)	—	16 141
Total milled (t)	29 500	94 000
Gold produced (kg)	75.0	112.0
Yield (g/t)	2.5	1.2
Price received (R/kg)	51 654	52 191
Revenue (R/milled)	78.51	39.19
Cost (R/milled)	94.14	35.71
Profit/(Loss) (R/milled)	(15.63)	3.48
Revenue (R000)	2 316	3 684
Cost (R000)	2 777	3 357
Profit/(Loss) (R000)	(461)	327
FINANCIAL RESULTS (R000)		
Working profit/(Loss) Gold	(461)	327
Net sundry revenue	250	0
Profit/(Loss) before tax	(211)	327
Tax	—	211
Profit/(Loss) after tax	(211)	116
Capital expenditure	(195)	(211)
DIVIDEND. No final dividend was declared.		
PRODUCTION. Since the beginning of the quarter gold has been recovered only through the clean-up process of gold locked-up in and around the plant. This process should be completed before the end of the year.		
RESTORATION. The restoration of the surface was started.		
SALE OF ASSETS. The Drocobult mining title and related agreement have been transferred to Vlakfontein Gold Mining Company Limited ("Vlakfontein") and in terms of the agreement with Vlakfontein has received the 32 million Nigal shares. The sale of the other assets will contribute to the repayment of the bank overdraft and a decision is still to be taken on the disposal of the Nigal shares.		
Tenders for the sale of the mines have been received and are in the process of being evaluated. A third party continues to express interest in purchasing the freehold but no offer has been received.		

On behalf of the board

M. J. Tagg
A. H. Munro } Directors

4 October 1990

Deelkraal

Deelkraal Gold Mining Company Limited
(Registration No. 74/0016/06)

ISSUED CAPITAL: 99 540 000 shares of 20 cents each, fully paid.

	Quarter ended 30 September 1990	Quarter ended 30 June 1990
OPERATING RESULTS		
Gold		
Ore milled (t)	405 000	405 000
Gold produced (kg)	2 306.5	2 350.3
Yield (g/t)	5.7	5.9
Price received (R/kg)	51 691	51 614
Revenue (R/milled)	180.83	185.87
Cost (R/milled)	245.69	129.10
Profit (R/milled)	35.18	57.77
Revenue (R000)	75 237	75 685
Cost (R000)	99 991	52 307
Profit (R000)	14 246	23 378
FINANCIAL RESULTS (R000)		
Working profit Gold	14 246	23 378
Net sundry revenue	3 188	4 858
Profit before tax and State's share of profit	17 434	28 234
Tax and State's share of profit	1 996	(397)
Profit after tax and State's share of profit	15 438	28 631
Capital expenditure	20 540	22 769
Dividend	—	34 839
CAPITAL EXPENDITURE. The unexpended balance of authorised capital expenditure at 30 September 1990 was R267.4 million.		
DIVIDEND. A dividend (No. 15) of 35 cents per share was declared on 12 June 1990, and was paid to members on 8 August 1990.		
No. 3 SHAFT. The shaft was sunk 218 metres to a depth of 1 105 metres below collar.		
No. 3 SUB-VERTICAL SHAFT. Excavation of the two main winder chambers, the rock winder chamber and the headgear dome is continuing.		

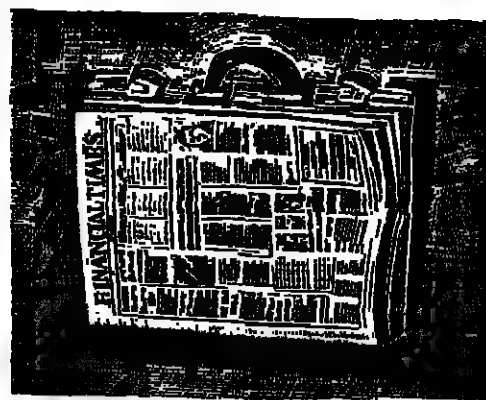
On behalf of the board

M. J. Tagg
A. H. Munro } Directors

4 October 1990

GOLD FIELDS OF SOUTH AFRICA LIMITED

Notes:
Copies may be obtained from the United Kingdom Registrar:
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London, SW1P 1PL



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AFEX CORPORATION S.A.

Incorporated in Luxembourg, R.C. Luxembourg No. B 1960

NOTICE OF GENERAL MEETING

NOTICE IS HEREBY GIVEN that a General Meeting of Afex Corporation Société Anonyme will be held at the offices of Malind & Co, S.A. r.l., 69-70 boulevard de la Pétruse, Luxembourg, on Tuesday, 23rd October, 1990 at 2.30 p.m. for the purpose of considering and, if thought fit, passing resolutions approving the purchase of certain assets from Consolidated Afex Corporation S.A., confirming the directors' authority to allot and issue shares and granting of options to purchase shares to certain key executives of the group.

By Order of the Board
CITY GROUP LIMITED
Group Secretaries
69-70 boulevard de la Pétruse,
Luxembourg,
23rd September, 1990
A circular letter containing the Notice of Meeting and giving full details of the above proposals, together with a form of proxy, was posted to shareholders on 29th September, 1990. Copies are available from the registered office of the Company and from the group secretaries, City Group Limited, 25 City Road, London EC1Y 1BQ.

NOMURA GLOBAL FUND

Société d'investissement à capital variable
Registered office: 11, rue Aldringen
L-1118 Luxembourg R.C. Luxembourg B-31.127

The shareholders are hereby reconvened to attend a second

EXTRAORDINARY GENERAL MEETING

to be held on 22nd October, 1990 at 4 p.m. at the offices of the Transfer Agent KREDIETRUST, at 11, rue Aldringen in Luxembourg, with the same agenda as the extraordinary general meeting of shareholders held on 17th September, 1990, where no quorum was reached:

- To approve the merger of NOMURA GROWTH FUND S.A. (the "Company") with NOMURA GLOBAL FUND ("NGF") into the NOMURA GLOBAL FUND - Asia-Pacific Portfolio ("NGF-AP"); and,
- upon hearing:-
 - the report of the Directors of the Company in relation to the merger proposal (the "Merger Proposal") published in the Mémorial, Recueil Spécial des Sociétés et Associations in Luxembourg (the "Mémorial") and deposited with the Chancery of the District Court in Luxembourg; and
 - the audit reports prescribed by Article 266 of Luxembourg company law and subject to approval of the Merger Proposal by the shareholders of the Company at its extraordinary general meeting;
 - to approve the Merger Proposal;
 - to accept the issue without charge of shares without par value of NGF corresponding to the NGF-AP Portfolio (the "New Shares") in exchange for the contribution of all assets and liabilities of the Company, at a price and exchange ratio based on the respective net asset value of the Company and of NGF as of the last Valuation Date thereof preceding the Effective Date, as defined in the Merger Proposal;
 - to accept the allocation of New Shares to the shareholders of the Company on the basis of the audited value of the net assets confirmed by the special auditors appointed by the Company for the merger;
 - to decide that, as a result of the merger, the Company shall be wound up and all its former shares in issue be cancelled, on the basis that all assets and liabilities of the Company shall be deemed to be transferred to NGF, as of the Effective Date.

Resolutions on the agenda above will require no quorum and a majority of 75% of the shares present or represented.

The following documents shall be at the disposal of the shareholders of the Company for inspection and copies thereof may be obtained, free of charge, from the Transfer Agent KREDIETRUST at 11, rue Aldringen, L-2960 Luxembourg:

- the text of the Merger Proposal;
- the prospectus of NGF;
- the semi-annual accounts as at 30th June, 1990 of NGF;
- the annual accounts at 30th June, 1987, 1988 and 1989 of the Company and its semi-annual accounts at 31st December, 1989;
- the reports of the Directors of the Company and of NGF;
- the reports of the special auditors of the Company and of NGF on the Merger Proposal.

Proxies should be sent to the Transfer Agent at its address above or by fax to Luxembourg (352) 471 101 no later than 3 days prior to the meeting date.

The Board of Directors

Notes:

- As indicated in its Prospectus, NGF, as an Undertaking for Collective Investment in Transferable Securities, is subject to more stringent investment restrictions pursuant to Part 1 of the Luxembourg Law dated 30th March, 1988 relating to such Undertakings. A provision has been made as at 9th August, 1990 for expenses of NGF of U.S.\$1,127,866.72. This provision has been capitalised and is in the process of being amortised over a 5 year period expiring on 16th November, 1994.
- Investors in the Company who are in doubt as to their position in connection with this Merger Proposal are advised to consult their own professional advisers.

This notice and the Merger Proposal have been issued by Nomura Global Fund SA and approved for circulation in the UK by Nomura International plc, a member of TSA. Companies in the Nomura Group may hold positions in securities held by the Company or NGF and may have provided, or provide, significant corporate finance services to issuers of such securities.

INTERNATIONAL COMPANIES AND FINANCE

GFSA mines increase gold production and lift revenue

By Philip Gawth in Johannesburg

GOOD performances from the West Driefontein, Kloof and Libanon mines saw overall gold production and revenue increase at mines affiliated to Gold Fields of South Africa (GFSA) during the quarter to end-September.

The seven mines in the group lifted their gold production by 780kg to 27,241kg from the previous quarter. Total gold revenues were 4 per cent higher at R869.34m (\$339.5m) on the back of a largely unchanged gold price of R31,782 per kg. These increases were partially offset by a 5 per cent increase in working costs per ton of ore milled, from R156.71 to R166.25.

Mr Alan Munro, general manager of GFSA's gold operations, said this reflected "credible control of costs given that the full effect of the recently granted salary and wage increases were felt in the quarter under review."

Approximately half a mine's working costs came from labour so the recent average

rise in wages of about 15 per cent should alone account for a rise of 7 per cent in working costs for the quarter.

Speaking generally about GFSA's labour position, Mr Munro said they were trying "by all means possible, other than retrenchment, to reduce our labour force" but added "in some of our areas drastic action is becoming increasingly likely."

He did note that unlike some other groups, there was a good chance that GFSA could offer alternative employment within the group through the Northam platinum mine and the Leerdam extension to Kloof, both of which were steadily expanding their labour complements.

At Driefontein Consolidated, the disappointing problems at East Driefontein, caused by problems with a rock-winner, were offset by West Driefontein which lifted profits substantially. Costs were well held and yield increased markedly from 9.4g/t to 10.3g/t.

Kloof, which along with Driefontein is one of the richest mines in the industry, improved its performance considerably with working profit up from R81.8m to R96.6m. The yield was well up at 12.4g/t from 11.6g/t.

Mr Munro said this was in accordance with policy of deliberately withdrawing from areas of lower price payability. About two-thirds of the R131m capital expenditure bill was spent on the new Leerdam mine which should come into production in the first quarter of next year.

The other mine to perform well in the group was Libanon. A R5.6m working loss in the previous quarter was turned into a R5.5m profit through very tight cost control and a large increase in the yield from 4.1g/t to 4.7g/t. Driefontein and Deelkraal were the two laggards with the former posting a R7.5m working loss and the latter seeing a profit drop from R23.4m to R14.3m.

Intel in new action against AMD

By Louise Kehoe

INTEL has filed another lawsuit against Advanced Micro Devices in the continuing battle between the two Silicon Valley semiconductor manufacturers over microprocessor product rights.

A decision in a three-year-old dispute between the two companies over product licensing rights is expected imminently. They are also engaged in a suit over AMD's rights to use Intel's microprocessor microcode, the internal software that controls the functions of a microprocessor.

In its latest action, Intel has charged AMD with infringing its trademarked 386 product designation which is one of Intel's most

popular microprocessors. AMD is widely expected to introduce a clone of the Intel 386 this month, but the company declined to confirm or deny its product plans.

According to Intel, a document describing the new AMD 386 clone was "mistakenly delivered to an Intel employee at a hotel". Intel has been seeking information about reports that AMD will soon launch the 386 clone.

"On those documents, AMD designated their imitation 386 as an AM386 and claimed that designation as an AMD trademark. This is clearly an infringement of Intel's trademark for its 386 microprocessor," said Mr Thomas Dunlop,

Intel General Counsel.

Intel has filed for a temporary restraining order and a preliminary injunction to prevent the use of Intel's 386 numeric designation in an AMD product. The effect of any such orders would be to at least delay AMD's introduction of the microprocessor clone.

An AMD official said: "We dispute that Intel owns the exclusive right to use the designation 386. They raised the same issue in the 287 case and lost. This is a desperation gambit by Intel."

A judge recently ruled AMD could use the numerical designation of another microprocessor-type chip compatible with one of Intel's products.

Black & Decker to sell Emhart units

BLACK & Decker, the US power tools and hardware group, is to sell four of its Emhart businesses and has signed contracts to sell properties in the UK and France as a result of consolidations from the Emhart acquisition, Reuters reports.

Net proceeds are expected to

be about \$150m, which will be used to trim acquisition debt. The company said it expected all of the transactions to close by November 30. Black & Decker bought Emhart plumbing equipment and carpentry business for \$2.8m in 1988. The businesses are True Temper hardware, to be sold to

Emhart Corporation of the US; GardenAmerica, to a US unit of a Australia's James Hardie Industries; Medix, the medical computer systems unit of Planning Research Corporation, to be sold to a management-led buy-out group and the domestic capacitors arm, to be sold to Yosemite Investment.

Sematech appoints new president

By Louise Kehoe in San Francisco

SEMATECH, the US government-backed semiconductor research consortium, has named a former computer industry research director as its new president and chief executive.

Dr William Spencer, formerly a group vice-president in charge of research at Xerox, replaces the late Dr Robert Noyce, co-inventor of the microchip, who headed the consortium from its formation in July 1988 until his sudden death last June.

Sematech represents an unprecedented collaborative effort by a US industry group to maintain international competitiveness. The consortium's goal is to restore US leadership in semiconductor manufacturing technology.

As head of Sematech, Dr Noyce became the US semiconductor industry's chief advocate in Washington where he was closely involved in industry efforts to win funding for Sematech and to block foreign acquisitions of US high technology companies.

Dr Spencer, in contrast, is little known within the semiconductor industry. He has "several contacts in Washington," and is a member of the National Research Council's Computer Science and Technology Board as well as the Technical Advisory Board of the Competitiveness Council.

He appears, however, to have had little direct experience of the political lobbying that Dr Noyce considered to be an essential part of his role at Sematech.

Taking what some industry observers consider an optimistic view, Dr Spencer said Sematech's funding for the next two years was secure. The consortium receives half its annual \$200m budget from the Department of Defence, with the remainder coming from its 14 member companies.

On the issue of foreign acquisitions, Dr Spencer said that it was important that each step in the semiconductor production cycle be funded and supported within companies in the US.

"We are all concerned about the loss of key parts of the semiconductor production equipment and materials industry," he added.

Volvo chief assumes total responsibility in management shake-up

By John Burton in Stockholm

MR CHRISTER Zetterberg, Volvo president, will assume complete management responsibility for the Swedish vehicle and aerospace group with his additional appointment yesterday as the concern's chief executive officer.

He succeeds Mr Pehr Gyllenhammar, who will remain chairman.

The appointment of Mr Zetterberg as chief executive officer, effective October 15, had been expected ever since he was named Volvo president last November.

Mr Gyllenhammar explained that his relinquishing of the post of chief executive officer would allow him to concentrate both on strategic planning and the development of Volvo's alliance with Renault, the French state-dominated vehicle group.

Mr Gyllenhammar co-chairs the top co-ordinating committee of the Renault/Volvo partnership with Mr Raymond Levy, the Renault chairman.

"The primary reason why Mr Zetterberg has taken over as CEO at this time is that we have concluded our agreement with Renault," which was signed two weeks ago, Mr Gyllenhammar said.

Volvo is reorganising its top management structure to strengthen central control of its operations and improve co-ordination with Renault.



Christer Zetterberg: appointment had been expected

Management will be conducted along product lines rather than by geographical areas.

Volvo's decision to co-operate with Renault, however, is believed to be one of the reasons behind the recent departures of Mr Roger Holtback as president of Volvo's car division and Mr Bjorn Ahlstrom as head of Volvo's North American subsidiary.

Mr Gyllenhammar said yesterday at a news conference in Gothenburg that Renault/Volvo's joint bid for the Czechoslovakian car manufacturer Skoda could eventually lead to the takeover of Czech truck producers, such as Tatra and Liaz, as well.

Nippon Yusen to take stake in Rio Grande Industries

By Nikki Tait in New York

NIPPON Yusen, the Japanese shipping group, is taking a 5 per cent stake in Rio Grande Industries, the privately owned holding company which controls the fifth-largest railroad network in the US.

The two companies already have commercial links, dating back for more than half a century. RGI's San Francisco-based Southern Pacific, for example, runs double-stack container trains for Nippon Yusen.

No purchase price for the stake was disclosed, but it was suggested that the Japanese interest might help to bring in new international business for the railroad group.

Rio Grande was acquired by Mr Philip Anschutz, a Denver-based businessman for around \$498.5m. Mr Anschutz then made the ambitious move of adding Southern Pacific via a \$1.8bn leveraged buy-out in 1988.

Although this gave him a 15,000-mile network and was warmly welcomed by Southern Pacific's employees, the rail operations of Southern Pacific have continued to show losses, only offset by the proceeds from property sales.

Nippon Yusen, which is part of the Mitsubishi Industrial group, is not expected to play a management role in the railroads.



MALAYSIA

US\$650,000,000
Floating rate notes due 2005

In accordance with the provisions of the notes, notice is hereby given that for the six months interest period from 5 October 1990 to 5 April 1991 the notes will carry an interest rate of 8 1/8% per annum.
Interest payable on 5 April 1991 will amount to US\$413.92 per US\$10,000 note and US\$10,348.09 per US\$250,000 note.

Agent: Morgan Guaranty Trust Company

JPMorgan

Notice to holders of IZUMI Co., LTD. (The "Company")
Warrants to subscribe for shares of common stock of the Company (the "Warrants") issued in conjunction with the issue of

US\$ 25,000,000
2 1/4% Guaranteed Bonds 1991

In respect of the above-captioned Warrants, notice is hereby given as follows:
The Company issued US\$ 100,000,000 5% bonds 1994 with warrants to subscribe for shares of common stock of the Company at the initial subscription price of Yen 1,544, which was less than the current market price (Yen 2,661.3) per share of the Company as calculated pursuant to the provisions of the Instrument dated 4th September, 1986 executed by the Company (the "Instrument").
As a result of the new issue mentioned above, the Subscription Price (as defined in the Instrument) of the above-captioned Warrants has been adjusted in accordance with clause 3 of the Instrument as follows:
Subscription Price before adjustment Yen 1,508.3
Subscription Price after adjustment Yen 1,490.6
The said adjustment of the Subscription Price became effective as of 5th October, 1990 (Japan Time).

THE LONG-TERM CREDIT BANK OF JAPAN, LIMITED
as the Principal Paying Agent for and on behalf of
IZUMI Co., LTD.
Dated: 26 October 1990

THE LEGAL PROFESSION

The Financial Times proposes to publish this survey on:
OCTOBER 19th 1990

For a full editorial synopsis and advertisement details, please contact:
Anthony Carbonari
on 071-873 3412
or write to him at:

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FINANCIAL TIMES
EUROPE & BUSINESS NEWSPAPER

INTERNATIONAL COMPANIES AND FINANCE

The walking wounded of Tokyo's market turmoil

Robert Thomson reports on the Japanese companies suffering the biggest share price falls this year

There have been some big losers in Tokyo this year. The speculators' favourites - highly respectable banks, household names and the post-bubble buys with impressive "hidden assets" have all been battered in the stock market turmoil.

When the market opened this week, the losses were tallied for the year, about 30 companies were down by 65 per cent or more since last December. Last month, the price of 14 stocks fell by at least 40 per cent - including Fuji Heavy Industries and San-ei Electric, bought by Polly Peck late last year and down 45 per cent for last month.

Companies have been severely punished for the market's past indulgence in the habitual price-ramping and the herd buying of stocks on a whim - and by fears that high interest rates would break firms with heavy borrowings.

Concerns that land prices will crash have been tough on companies popular last year because of their perceived wealth in latent real estate assets.

TOP 10 LOSERS 1990 TO DATE Percentage fall in stock prices from 1/1/90 to market opening yesterday		
Rank	Company	Fall (%)
1	Nikko	76
2	Uchida	72
3	Uchida	70
4	Nippon Trust Bank	69
5	Meiji Shipping	68
6	Daiichi Chuo Kisen	65
7	Wakachiku Const.	65
8	Japan Oil Transport	64
9	Sagami Railway	64
10	Japan Paper	64

Source: Nikkei

The table of top 10 losers so far this year echoes the problems that first undermined market confidence at the year's beginning, problems that remain unresolved despite the market surge on Tuesday that made some of the figures a little less embarrassing.

Comparisons are made all the more striking by the market's bullishness last December, when prices were pushed to consecutive days of highs, and the market provided opportunities for speculators who targeted small companies and lifted their prices beyond

all reasonable levels. Some of the target companies and the speculators are now suffering.

Topping the list of share price falls is Nikko, a plant manufacturer for the asphalt industry, down 76 per cent since the first day's trading this year. It also has the honour of being the first Japanese company to launch an insider trading action against its largest shareholder, Sanwa Enterprise.

Sanwa Enterprise, and another experienced greenmailer, Akebono Kikaku, now in serious financial difficulty,

had amassed an unwelcome 23.9 per cent stake in Nikko, whose share price jumped from ¥740 to ¥3,750 last year. The company has sued Sanwa for ¥58m (\$410,000) on the grounds that, as a major shareholder, it unlawfully used inside information to buy and sell the stock.

"We have been asking where is the pain," said Mr Robert Brooke, of Barclays de Zoete Wedd, "and why does it seem that nobody is squealing. You can see that these companies have got to be hurting."

While several of the other big losers, including a silk underwear manufacturer, are in pain because of predators, other companies have fallen from grace in tandem with their sectors.

Railway stocks, bought last year because of their real estate assets, are down 59 per cent so far this year, as large real estate holdings are now perceived as a liability. Miscellaneous financial companies, as a group, are down 57 per cent because of concerns about higher interest rates and the damage done to their asset

TOP 10 LOSERS IN SEPTEMBER Percentage fall in stock prices 31/8/90 to 28/9/90		
Rank	Company	Fall (%)
1	Mitsumi Electric	48.82
2	Fuji Heavy Ind.	48.82
3	Sansui Electric	43.0
4	Rheon Automatic Mach.	42.9
5	Taka-Q	43.11
6	Itoman	42.94
7	Iauzu Motors	42.81
8	Kimura Chemical Plants	41.82
9	Nippon Koei	41.21
10	Taiheyo Kohatsu	40.73

Source: Tokyo Stock Exchange

base by the stock market plunge.

Conservative companies, such as Ishikawajima-Harima Heavy Industries (IHI), the shipbuilder and heavy machinery maker, have paid for investors' past passions for what were perceived to be under-undervalued real estate assets.

Ms Lynne Ross, of W.I. Carr, the stockbroker, said that rising interest rates have undermined the prices of highly geared companies and of financial institutions, such as brokers, which have been "severely hit".

Banks as a group are down

52 per cent on the year.

"The market is waiting to see what is happening to speculative companies. They must be verging on bankruptcy. These companies are also tied up in real estate. Investors are now restricted in what they can buy for their portfolios, and they are wanting to hold quality," Ms Ross said.

The desire for quality is reflected in the stocks that have fallen least this year. Metal products companies are down only 35 per cent, electricals by 32 per cent, the technology sector by 33 per cent and vehicle makers by 35 per cent.

Moody's may downgrade News Corp debt

By Kevin Brown in Sydney

NEWS Corporation shares continued to fall in Australia yesterday, as investors appeared unperturbed by the group's plans to cut costs by establishing 24-hour newspapers in Sydney and Melbourne.

And later yesterday Moody's Investors Service announced in New York it may downgrade News Corp's long-term credit ratings. It said it would review News Corp's level of liquidity

and financial flexibility in view of increasingly restrictive global financial markets, declining asset values for media properties and the outlook for weakening operating margins in the media and entertainment industries.

On the Australian Stock Exchange News Corp's shares fell 24 cents to A\$6.68, following a fall of 18 cents on Wednesday, and a drop of more

than A\$2 last week. The shares now stand at less than half their year's high.

Mr Rupert Murdoch, News Corp chief executive, announced on Wednesday that the group would merge its morning and evening newspapers in Sydney and Melbourne into separate round-the-clock newspapers from Monday.

The move would eliminate losses of up to A\$25m (US\$21m)

a year incurred by the two afternoon newspapers, the Sydney Daily Mirror and the Melbourne Herald, once the flagship of Mr Murdoch's father, the late Sir Keith Murdoch.

However, brokers said investors continued to be concerned about the level of News Corporation's short-term debt, in spite of assurances from Mr Murdoch that profitability was set to improve.

GMH boosts net 64% but warns this is unsustainable

By Kevin Brown

GENERAL Motors Holden's Automotive (GMH), the Australian subsidiary of General Motors of the US, yesterday announced net profits of A\$151.5m (US\$126m) for the year to June 30, on sales of A\$2.4bn.

The result is a significant improvement on the previous year, when GMH reported net profits of A\$92.4m on sales of A\$1.7bn. The strong performance surprised industry observers, but Mr Bill Hamel, GMH chairman, said it would not be sustained.

Mr Hamel said the result was influenced by the successful launch of the Holden Commodore, which coincided with a strong market and led to higher than expected sales. "To place this in perspective, GMH recognises that it cannot expect to sustain the profit performance of the past 12 months," he said.

GMH, Nissan, Ford and Toyota have closed their Aus-

tralian factories for one or two weeks recently due to falling sales.

Ford and GMH have also protested against government plans to reduce tariffs on imported motor vehicles by 5 per cent a year for four years as part of an across-the-board reduction in tariff protection.

A merger between MLC Life, the life insurance subsidiary of Australian property and financial services group Leas, and follow-up insurer Capita Financial has been approved by Australian courts, Reuter reports from Sydney.

The merged group, to be called MLC Life, will become the third largest life office in Australia with assets of more than A\$10bn, Leas said. Reserves of the merged group will total A\$1.4bn, a reserve ratio of 24 per cent or more than A\$900m in excess of government requirements, the company said.

KIO applied for all shares in Singapore oil flotation

DESPITE the Gulf crisis, the London-based Kuwait Investment Office (KIO) applied \$5100m (US\$67m) for all the 80m shares being offered in the flotation of Singapore Petroleum Company (SPC), writes Joyce Quak in Singapore.

This meant the oil refining group avoided the embarrassment of being the first Singapore offering to be under-subscribed in recent years.

Kuwait's interests in Singapore are estimated to be worth more than \$81bn, in property, blue chip companies and a brokerage. Analysts put KIO's offer for SPC - the single largest share application in Singapore - down to three reasons.

Firstly, KIO's subsidiary Kuwait Petroleum Corporation (KPC) refines 3m barrels a year under a five-year refining contract with SPC. Secondly, KPC was reportedly interested in the Pulau Merlimau Refinery

which is owned by SPC, Caltex and British Petroleum. Finally, Kuwait may be trying to make up for the lost refining capacity at home.

The KIO becomes the fourth largest shareholder in SPC with 10.6 per cent, after DBS Bank and the Panamanian-registered Oceanic Petroleum (Asia) which each hold 21.4 per cent, and Natssteel of Singapore with 12.8 per cent. The offer was 1.6 times sub-

scribed. In all, applications for 122,080 shares worth \$8152.8m were received comprising 7,904 local applications for 27.9m shares and 418 foreign applications for 94.2m shares.

With the low subscription rate, all applicants will be allotted their applications in full except for the KIO, which will receive 38.95m shares, due to SPC's foreign share ownership limit being set at 49 per cent.

Océ-van der Grinten N.V.
Venlo (Holland)

6 1/2% Convertible Subordinated Debentures due 1999/1998.

Today drawn for redemption at par per December 1, 1990 the debentures belonging to redemption group no 7.

The debentures bearing the number of the above mentioned redemption group will be payable at the offices of the paying agents hereinafter mentioned, from December 1, 1990 if not converted earlier.

The conversion right for the above mentioned drawn debentures expires on November 30, 1990. The present conversion price is NLG 46.60.

The paying and conversion agents are the head offices of Amsterdam-Rotterdam Bank N.V., Pierson, Halding & Pierson N.V., Algemene Bank Nederland N.V., Bank Maas & Hope N.V. at Amsterdam as well as Crédit Lyonnais, Paris, Deutsche Bank A.G., Frankfurt am Main, Schweizerische Bankgesellschaft, Zürich, Schweizerische Kreditanstalt, Zürich, Société Générale de Banque S.A., Brussels and Union Bank of Switzerland (Luxembourg) at Luxembourg.

Drawn and payable in 1989 are the debentures belonging to redemption group 3.

The outstanding amount of the loan after the above mentioned redemption is NLG 20,243,000.-

The Trustee:
NEDERLANDSCHE TRUST-MAATSCHAPPIJ B.V.Amsterdam, 19th September 1990.
Nieuwe Zijds Voorburgwal 326-328.

Yen 10,000,000,000

Metropolitan Estate and Property
International N.V.

(Incorporated with limited liability in The Netherlands)
Floating Rate Guaranteed Notes due 1995
Irrevocably and unconditionally guaranteed by

MEPC plc
(Incorporated with limited liability in England under the Companies Act 1929)

Notice is hereby given that for the Interest Period from October 5, 1990 to January 7, 1991 the Notes will carry an interest rate of 8.625% per annum. The amount of interest payable on January 7, 1991 will be Yen 225,206 per Yen 10,000,000 principal amount of Notes.

By: The Chase Manhattan Bank, N.A.
London, Principal Paying Agent

October 5, 1990



NEW ISSUE

This announcement appears as a matter of record only.

October, 1990



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NEW ISSUE

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October, 1990



IZUMI

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(Kabushiki Kaisha Izumi)

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UK COMPANY NEWS

Smurfit optimistic despite setback

By John Thornhill

JEFFERSON SMURFIT, the Irish-based paper and packaging company, yesterday said it had a good chance of being one of the few paper companies in the world to increase earnings per share this year.

The group's relative optimism on the release of its interim figures was appreciated in the City, and its shares closed 20p higher at 518p.

Following last year's complicated restructuring of its North American businesses, the group did, as expected, report lower pre-tax profits of £82.43m (£75.67m) for the six months to July 31, against £120.73m a year ago.

Sales also declined to

£484.81m (£579.73m). However, if the US companies' sales had been included on a comparable basis - they now form 50 per cent of associate companies - then group sales would have risen by 12.5 per cent to £598.3m.

Fully diluted earnings per share advanced to 25.1p (23.9p). The interim dividend was also increased by 7.5 per cent to 15.7p (14.6p).

Jefferson Smurfit's US businesses, JSC and Continer Corporation of America, were combined and refinanced last year, resulting in a cash dividend of about \$1m for the Irish parent company. The company said these receipts had been

exchanged into "harder" currencies resulting in a 13 per cent gain in dollar terms.

In spite of some small acquisitions in Europe and investing in a newspaper mill in the US, Jefferson Smurfit still retained £878m in cash at the end of the period. The strong balance sheet opened many opportunities for soundly-based acquisitions, the company said.

It also resulted in Jefferson Smurfit receiving interest of £14.74m, compared with a £19.14m interest charge a year ago.

The company's operations in the US and Canada contributed substantially lower operating profits of £10.82m (£50.4m)

because of the restructuring. Contributions from UK activities also declined to £2.41m (£3.8m) because of prolonged high interest rates and the economic downturn.

However, in all other geographical areas Jefferson Smurfit increased trading profits. Ireland contributed £69.54m (£67.25m); other European Community countries made £18.38m (£12.79m); and Latin America provided £26.84m (£25.05m).

The share of net profits from related companies and non-consolidated finance subsidiaries fell to £16.69m (£47.77m).

See Lex



Peter Earl: abandoned capital reconstruction

Tranwood withdraws interim payment

By Andrew Hill

A LACK OF funds has forced Tranwood, the USM-quoted financial services group headed by Mr Peter Earl, to withdraw its interim dividend as the day before it was due to be paid.

Tranwood has had to cancel the dividend cheque, which had already been posted to shareholders by the company's registrar, Barclays Bank. A separate letter has now been sent asking shareholders to return their cheques.

Tranwood's shares slipped from 54p to 44p yesterday, in spite of a simultaneous announcement that the group had received an approach from a potential bidder. At that time Tranwood was worth \$4m, compared with a market value at the share's peak in August 1989 of nearly £50m.

According to Tranwood's advisers, the company did not invite the approach, which came from outside the group. Discussions are at an early stage, but the company said a further announcement would be made "as soon as possible".

Tranwood declared a maintained dividend of 1p on August 6, but the 200,000 pay-out was not covered by first-half profits, which amounted to only \$44,000 after extraordinary costs.

Tranwood had expected £3.3m of mezzanine finance and equity investment in the Imperial Centre, a new office and retail project in Bristol, to be repaid, or replaced before September.

In addition, Tranwood is still owed about \$4m by ICA Holding, a Netherlands company, and has an option to convert its loan into shares in ICA, but has yet to take a decision.

Tranwood, initially a hedge company, bought Mr Earl's main-merchant bank (Incorp Earl) in 1987 and demerged the financial services business a little less than a year later. The group is now involved in investment management, corporate finance, and investor relations.

Mr Earl, group deputy chairman and chief executive, announced a capital restructuring plan in January but abandoned it three months later in favour of repurchasing the shares. In its interim announcement Tranwood said it would continue with that plan during the rest of the year, but no shares have been bought back since August 6.

Lower wool prices will leave Parkland lower

By Richard Gourley

Shares in Parkland Textile (Holdings) yesterday closed down 10p at 175p after Mr John Hanson, chief executive, warned that profits would be sharply lower in the first half of 1990 reflecting lower wool prices and a tightening of margins.

Mr Hanson said the company would only break even at the pre-tax level. This compares with profits of £1.68m in the same period in 1989. After exceptional items, including a loss of Middle East business and the cost of reorganising operations, the group would make losses of £500,000.

In May, Parkland reported pre-tax profits down 21 per cent at £3.04m as customers in the weaving division, cut orders towards the end of the year. Parkland said its was too soon to say if it would produce a small profit for the full year.

BOARD MEETINGS

The following companies have notified dates of board meetings to the Stock Exchange. Such meetings are usually held for the purpose of considering dividends. Official notices are not available as to whether the dividends are interim or final and the shareholders shown below are based mainly on last year's accounts.

Company	Date
Admiral	Nov 19
Barclays	Oct 19
British Gas	Oct 17
British Telecom	Oct 15
British Waterways	Oct 15
British Airways	Oct 12
British Airways	Oct 9
British Airways	Oct 9
British Airways	Oct 9
British Airways	Oct 9

Hillsdown gains up to 70% of Strong & Fisher in rescue deal

By Jane Fuller

THE RESCUE package announced yesterday for Strong & Fisher, one of only two quoted leather companies, will give control of up to 70.5 per cent of the shares to Hillsdown Holdings, the food, furniture and property group.

The proposals, designed to save Strong from almost inevitable receivership, also involve 11 banks effectively writing off £14m of the £48.3m owed to them and converting a further £24m into equity.

Hillsdown, one of the UK's largest abattoir operators, plans to inject its salmon farming (wool removal and pelt picking operations), hide and skin trading and rendering businesses into Strong & Fisher in return for 63m new ordinary shares.

Hillsdown will also pay £11m cash for a further 44m new shares and underwrite a 7-for-10 rights issue to raise £3.3m. Depending on the take-up of the issue, Hillsdown will end up with between 63.1 per cent and 70.5 per cent of the ordinary share capital. The banks will have 18.5 per cent, so the existing shareholders

will see their portion reduced to a maximum of 18.1 per cent.

The dire state of Strong & Fisher's finances was made clear in the results announced yesterday for the year to June 29. It reported a pre-tax loss of £17.52m against profits of £1.7m last time.

Operating profit was £550,000, compared with £521m, on turnover of £83.7m (£90.76m). Interest charges amounted to £8.98m (£3.35m) and exceptional costs to £3.14m (£313,000). The latter related largely to stock losses following the collapse of the sheepskin price and to provisions for bad debts.

Extraordinary costs of £16.65m (£1.74m) included a £12m provision against the loss on an investment in Pittard Garra, which it tried to take over in September 1988 - with Hillsdown as a rival bidder. Hillsdown eventually sold a 17 per cent stake in Pittard to Strong.

After total losses of £25.45m (£125,000), Strong's net liabilities at the year-end stood at £11m and the balance sheet continued to deteriorate.

The new group will be debt free and have net assets approaching £57m.

Mr John Jackson, Hillsdown's deputy chairman, said the company slaughtered about 20,000 sheep each week. The deal would take Hillsdown into the business of adding value to those skins - Strong is the UK's leading producer of fashion leathers.

He stressed that the deal was subject to the Office of Fair Trading's approval.

Mr Richard Strong, managing director of the company founded by his great-grandfather, will stay on as a director. The banks will get £10.8m repaid from the proceeds of Hillsdown's new share purchases and the rights issue.

Of the remaining £38m debt, £8m will be converted into new ordinary shares, £16m into convertible preference shares and a further £14m into other convertible preference shares, which will be transferred to Hillsdown for a token consideration, hence the effective write-off of this amount.

Strong's shares were suspended at 20p last month.

Etam tumbles to £1.1m loss

By John Thornhill

ETAM, the clothing retailer, tumbled into the red in the first half of the year as it suffered from difficult trading conditions. But the company said it expected to show a profitable, if diminished, outcome for the full year.

The group had already issued a profits warning in June and the shares yesterday bounced to 72p, up 12p on the day.

At the taxable level, losses amounted to £1.12m in the 26 weeks to August 11, compared with profits of £5.27m. Sales were strongly ahead at £29.28m (£24.36m), an increase of 18 per cent.

The dividend was cut from 1.95p to 1.2p.

The company said its expansion plans were now complete

and that it would concentrate in the second half on cutting costs and restoring margins.

Mr Alan Howard, chairman, said Etam would apply its energies to bringing the 200,000 sq ft of trading space it had acquired since January 1989 to maturity.

Losses per share amounted to 1.8p, against earnings of 6.22p last time.

COMMENT

In some respects Etam has the lamentable appearance of a failed "space bandit" - a classic 1980s retailer which went on a wild buying spree in the high street and which is now saddled with too many outlets and spiralling costs. But such an assessment is somewhat unfair to the company, since,

unlike many other straitened retail companies, it is still in reasonable financial shape with a strong balance sheet and low gearing. Sales have also remained good and there are better margins to be ground out in the second half which should encourage a return to profit for the year. Analysts are looking for a taxable outcome of some £5.5m, putting Etam on a prospective multiple of 11.

That looks high given the continuing grim outlook for the high street - although all multiples in the retail sector appear fairly peculiar at the moment. But it would still be best to wait to see how well the company tackles the second half before leaping decisively either way.

Goodman Examiner borrows £30m

By Kieran Cooke

Mr Peter Fitzpatrick, the Examiner appointed to report on the financial affairs of Goodman International, has won court approval to borrow £30m (£27m) of emergency funds to keep the company's meat factories operating until the year end.

Mr Fitzpatrick is due to present a report to the High Court assessing the viability of Goodman International. There was speculation that Mr Fitzpatrick may seek to delay his report because of the added complexity of including the Goodman Holdings companies.

DIVIDENDS ANNOUNCED

Company	Current payment	Date of payment	Corresponding dividend	Total for year	Total last year
Bridgend	0.41	Nov 22	0.25	-	1
Clifton Cards	1.01	Nov 16	1.2	-	4.38
Copplestone	0.8	Nov 2	0.8	-	3.5
Druck	5.8	Nov 16	4.8	8.2	7.4
Elan	1.2	Jan 3	1.85	-	6.6
Finlay (James)	2	Jan 3	2	-	4.16
Galliford	3.51	Nov 22	3.75	4.38	3.9
Hawes & Curtis	0.625	Dec 11	0.75	-	2.76
Ingham (George)	11	Oct 31	1	-	3
Jacob (W&A)	3.25	Nov 1	3	-	9.5
Lap	1.8	Jan 11	1.75	-	6
Martin (Albert)	1.8	Jan 2	1.6	-	4
Murray Ventures	6.1	Nov 28	4.7	9.35	7.2
Ne-Swift	5	Nov 9	7	-	15
Smurfit (Jeff)	1.575	Dec 31	1.483	-	4.7
Strong & Fisher	0.1	Nov 1	0.3	2	12.3
Tilbury	10.5	Oct 31	10	-	32
TSW	3.77	Nov 5	3	5	4.15
Venart Int Tel	1.3125	Nov 5	-	-	-

Dividends shown pence per share net except where otherwise stated. *Equivalent after allowing for scrip issue. †Capital increased by rights and/or acquisition issues. \$USM stock. ‡Irish currency.

Exports help Druck maintain growth

Druck Holdings reported taxable profits for the year to June 30 ahead by 10 per cent at £4.22m. Mr John Salmon, chairman, said the company was protected from the UK economy by its buoyant overseas activities.

Turnover increased to £19.06m (£17.23m), a rise of 11 per cent.

Earnings per share were 40p (37.4p) and the final dividend is 5.5p for a total payment of 8.2p (7.4p). The tax charge was £1.56m (£1.45m).

Head of Pathé UK resigns

By Clare Pearson

MR BARRY JENKINS has resigned mysteriously as managing director of the UK operations of Pathé Communications, the Hollywood studio and entertainment company controlled by Mr Giancarlo Parretti, the Italian financier.

Pathé has until October 23 to raise funds to complete its £1.3bn takeover bid for MGM/UA, the Hollywood film studio. Mr Jenkins had earlier made it known that he was willing to

spearhead a management buy-out of Cannon Cinemas, the UK cinema chain put up for sale by Pathé along with other assets in an effort to provide funds for the ambitious MGM/UA bid.

It was also announced yesterday that Mr Martin Evans had "been relieved of his duties" as finance director of Pathé Group (UK).

Executives at the company were unavailable for comment.

Analysts expressed scepticism as to whether Mr Parretti would be able to finalise the MGM/UA bid after Time Warner, the media conglomerate, in June withdrew its offer of a \$650m loan to help finance the takeover.

Pathé Communications, which has already committed some \$300m to the deal, must have an extra \$1bn worth of finance in place to complete its offer for MGM/UA.

This announcement appears as a matter of record only.

October, 1990

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The Fuji Bank, Limited
Rabobank Nederland, London Branch
The Sumitomo Bank, Limited

Union Bank of Switzerland, London Branch

Participants

Barclays Bank PLC
Morgan Guaranty Trust Company of New York
The Sanwa Bank, Limited
Union Bank of Switzerland, London Branch
The Development Bank of Singapore Ltd., London Branch
The Mitsubishi Trust and Banking Corporation
The Toyo Trust and Banking Company, Limited
The Fuji Bank, Limited
Rabobank Nederland, London Branch
The Sumitomo Bank, Limited
Den Danske Bank
The Kyowa Bank, Ltd.
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Business Finance

SEP 1990

Airbus clinches £2bn contract

By NICK NUTTALL
TECHNOLOGY CORRESPONDENT

AIRBUS Industrie has clinched a contract worth nearly £2 billion to supply 48 A320 aircraft to America West Airlines.

The contract, which was announced yesterday, between the American carrier and Airbus, the European consortium which is 20 per cent owned by British Aerospace, also includes an option for a further 44 aircraft and an additional 26 from the A320 family.

It was also disclosed yesterday that International Aero Engines, which is a third owned by Rolls-Royce, will supply engines worth over £500 million.

The deal strengthens Airbus Industrie's penetration of the north American aviation market, which has traditionally been dominated by Boeing, particularly since it comes after confirmation by Northwest Airlines, another American carrier, that it will be ordering 100 A320 aircraft.

America West, a carrier based in Phoenix, Arizona, with an existing fleet of 12 Boeing aircraft, is expected to begin taking delivery of leased aircraft in January 1991.

Airbus is expected to ship the aircraft in the contract to the carrier between 1992 and 1993.

Industry experts say Airbus, which includes the French firm of Airbus Industrie and the British firm of British Aerospace, which makes

Airbus wins \$5bn US order for 118 aircraft

By Paul Betts, Aerospace Correspondent

A FRESH breakthrough for Airbus, the European aircraft manufacturing consortium, in the US airline market came yesterday with a \$5bn (£2.6bn) order for up to 118 A320 aircraft from America West Airlines.

The deal brings to 643 the number of A320s on firm order from airlines around the world, surpassing the 600 break even target at which the aircraft programme becomes profitable. It follows a \$1.8bn order for 28 A320s announced by Swissair last Friday and confirmed by another US carrier, Northwest Airlines, of the twin-engine, narrow-bodied airliner.

Northwest has also taken 30 seats A320, the new computer controlled "fly-by-wire" civil airliner has become the industry's fastest selling passenger jet during the last six years. So far 110 have been delivered to customers, and that it would report an operating profit this year for the first time in its 22-year history.

The America West deal involves a complex multi-party transaction including GPA, the Shannon-based aircraft leasing group, the International Aero Engine (IAE) consortium of Japan, and Airbus Enterprises. Under the contract, firm orders have been placed for 74 aircraft, with options for an additional 44. Kawasaki Enterprises will act as the financial broker between the parties.

Swissair is set to place an order for 26 new Airbus aircraft.

£2bn boost as Airbus lands another major contract

Mary Brackley, European Business Editor

AIRBUS Industrie, the four-nation consortium of European plane makers, won its second large order in a week when America West, the US regional carrier, confirmed yesterday it will buy up to 118 A320 jets, worth around £2 billion. The contract will extend Airbus' record order book to more than 1,500 aircraft sold. It comes on the heels of Swissair's request last week for 28 of the A320 jetliners. Orders for planes will be placed until 1995, says Airbus.

\$1.94bn jet order

Airbus Industrie, 20 per cent owned by British Aerospace, announced yesterday that America West Airlines had placed firm orders to buy 48 A320 aircraft worth up to \$1.94 billion.

Aircraft order: Swissair has ordered 26 new Airbus aircraft to replace its MD-81 planes.

Swissair's order, compared with around eight year ago, America West, which has been contemplating an order for some months, is buying 48 new jets and has an option on a further 44. The airline also recently bought 26 planes from the Irish carrier, the Irish Airline group.

Airbus gets US order worth \$5bn over 15 years

By Michael Harrison, Industrial Editor

AIRBUS, the European aircraft manufacturer, yesterday announced that it had clinched a US order for up to 118 of its A320 jets, worth \$5bn over the next 15 years.

The contract, placed by a domestic US carrier, America West Airlines, is one of the largest placed with the four-nation consortium in which Britain has a 20 per cent stake. The deal will bring in orders worth hundreds of millions of pounds for British Aerospace and Rolls-Royce.

The consortium, which includes British Aerospace, the French firm of Airbus Industrie and the British firm of British Aerospace, which makes

Swissair is set to place an order for 26 new Airbus aircraft.

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Airbus wins \$1.77bn Swiss deal

EUROPE'S Airbus consortium yesterday secured an important \$1.77bn (£940m) order for 28 of its aircraft from Swissair, Switzerland's national airline, writes William Dullforce.

The contract, won in competition with McDonnell Douglas, is expected to lead to further orders from other airlines, including Finnair, Scandinavian Airlines System.

These airlines, which cooperate with Swissair in harmonising technical specifications, also plan to renew their short-haul fleets. Swiss officials say orders from the four carriers could total 230 aircraft.

The Swissair deal may aggravate the three-year dispute between Brussels and Washington over government subsidies to the four-nation Airbus consortium.

Swissair is set to place an order for 26 new Airbus aircraft.

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THE A320. THE HEADLINES SPEAK FOR THEMSELVES.

Sales of the A320 go from strength to strength. This week's orders from America West and Swissair, confirm its success in both the North American and European short-haul market. Yet another vote of confidence in the European aircraft industry. Confidence shared by 100 Airbus customers worldwide.

AIRBUS INDUSTRIE



UK COMPANY NEWS — THE POLLY PECK AFFAIR

Turkish pledge may give Nadir a breather

Polly Peck chief to plead with bankers today for more time, David Lascelles reports

Mr Asil Nadir, Polly Peck International chairman, will plead with his bankers today to give him a breathing space to rescue his company from break-up.

At a meeting in the City of London he will ask them to roll over PPI's existing credit facilities, and then grant a moratorium on interest payments of up to 90 days. He will also tell the representatives of 50 banks that the Turkish government has promised to provide cash to help the company through its crisis.

"From my contacts with my banks I believe the atmosphere is very positive," he said yesterday. "I am confident that the right decision will be to roll over their uncommitted funds." But he warned that if the banks refused to roll over, PPI would have to embark on a programme of asset sales.

"We'd sell the whole thing if necessary, obviously," he said of the group's main arm, the

Del Monte fruit company.

Mr Nadir will not be bringing to the meeting any concrete evidence of the Turkish government's willingness to provide finance. He said that his bankers had already been circulated a letter from the Turkish Economics Ministry promising help. But that was before Ankara received the controversial letter from the Foreign Office.

It had not yet been decided in exactly what form the Turkish money would be forthcoming, but it might come as loans from state-owned and private sector Turkish banks carrying a government guarantee. The loans would amount to £100m or more, and would be tailored to meet the needs of PPI's other bank creditors. It would not be conditional on the banks making concessions.

During the 90-day moratorium, an evaluation of the company would be completed by Coopers and Lybrand, the accountancy

firm. A co-ordinating committee of bank creditors would also be set up to work on solutions.

Mr Nadir will give details of PPI's present financial position. The company stopped paying its bankers last week. Between now and the end of the year, PPI needs to find \$38m to service its debts, including \$40m which it should have paid last month. It needs a further \$20m this month and next, and £18m in December.

Normally, it would be able to finance these payments from its cash flow and by rolling over loans. But Mr Nadir said that many banks had withdrawn their credit lines once news of PPI's crisis broke.

Of the total \$200m of debts, about 82 per cent is in the form of committed funds, Mr Nadir said. This means that banks cannot normally withdraw credit facilities. But this also implies that about £150m of borrowing is in the form of uncommitted facilities which

can be cancelled at any time. This is the lifeline that has been cut off.

PPI has transferred between £70m and £80m in cash back from its operating divisions to help meet the parent's commitments. But normally cash flowed in the opposite direction, Mr Nadir said, and the company was not organised to bring cash back to the centre. This has contributed to its liquidity problem.

Mr Nadir will tell his bankers that PPI will be slashing capital spending from £200m this year to £50-60m next year. Operating subsidiaries have been told to rein in their expansion plans, but this would also take time to implement. But he will stress that individual subsidiaries are still healthy and operating profitably.

Bankers who are due to attend today's meeting said last night that they would have to be convinced that Polly Peck had sufficient cash flow to

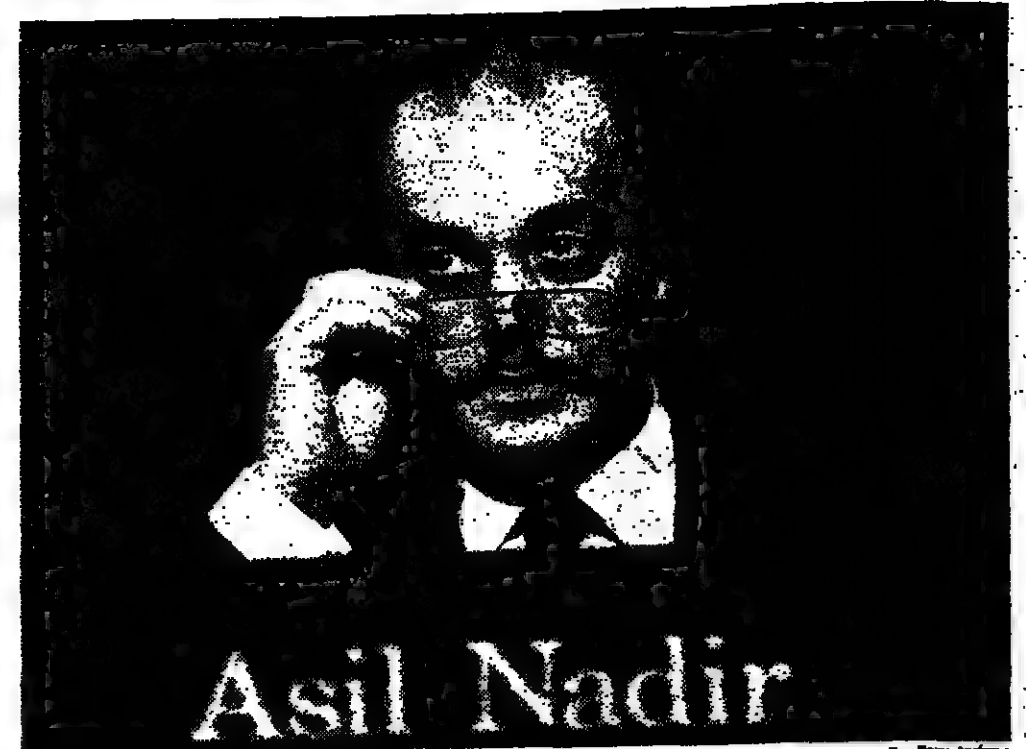
meet its commitments before they would agree to the proposals.

Because the additional finance promised by the Turkish government was vital to this, they would require firm evidence of Ankara's readiness to guarantee loans.

They would also seek information about the payments that PPI would have to make in the coming months, what assets were available for disposal if need be, and the management's view of the company's future.

But today's meeting, for which one of the City institute halls has been hired, is likely to be a cumbersome, inconclusive affair. Standard Chartered, the organiser, is expecting 300-350 people.

Bankers were wary of predicting the outcome of PPI's crisis. One of them said they faced the classic dilemma of whether to call in the receivers, or lend more money to bail a company out of its difficulties.



Nadir cuts fortune with personal asset disposals to free shares

By Clay Harris

MR ASIL Nadir said yesterday that he was selling personal assets to free an unspecified number of Polly Peck International shares which are still held by banks as collateral for loans.

However, he shrugged off the blow to his personal fortune caused by the sharp fall in Polly Peck's share price and the forced disposal of more than 16m of his shares by banks which were holding

them as security. "Money's not relevant to me," said the Polly Peck chairman, who acknowledged on Monday night that he was "urgently addressing" his personal liquidity problems. He said he was now "almost comfortable" with his position.

Mr Nadir claimed his personal wealth was still "eightfold to tenfold" the value of his residual 34.41 per cent shareholding. At the suspen-

sion price, this implies he is still worth from £900m to more than £1.1bn.

"I have a lot of assets in Turkey and Cyprus," he said. He spoke both of margin loans — money borrowed to buy shares — and of "collateralised" shares held as security, but declined to specify if both facilities were involved.

All transactions related to personal affairs rather than those of the company, he said.

Sansui 'not affected' by parent's problems

By Ian Rodger in Tokyo

SHARES of Sansui, the electronics subsidiary of Polly Peck International, have plunged by 42 per cent on the Tokyo Stock Exchange since the middle of August.

At first glance, that would suggest that investors are anxious about the possible effects of PPI's liquidity problems on Sansui. However, that is only half the story. The plunge has come at a time when the Tokyo market in general has been falling rapidly. The Nikkei average of 250 leading shares has tumbled 21 per cent over the same period.

The company's shares closed down ¥54 yesterday at ¥535.

Mr Koichi Enomoto, a Sansui director, said PPI's problems had not affected operations so far. "Sansui, Capetronics and Imperial are all separate from PPI. We buy and sell through our own organisation or subsidiaries. There are no day to day transactions with our parent company."

"In the worst case, PPI

might sell its shares and a new owner might have a different policy towards Sansui."

PPI bought a 51 per cent stake in Sansui, which was then nearly bankrupt, a year ago for ¥15.6bn (£60.5m). Then, this May, the British company sold its own consumer electronics subsidiaries, Capetronics and Imperial, to Sansui in an effort to strengthen all three. In doing so, its stake in the Japanese company rose to about 76 per cent.

Mr Enomoto said that since the PPI takeover, Sansui had introduced several new products and expected to make an operating profit in the fourth quarter for the first time in more than four years.

PPI had not asked Sansui for funds to help it through its liquidity crisis. "We cannot help. They are just a shareholder, and we have to follow normal business practice. Anyway, we are very small, and the money involved for them is very big."

Midland denies blocking payment

By Richard Waters

MIDLAND BANK was yesterday at the centre of a storm of protest from other banks which claimed that it was the institution which had blocked a \$15m (£7.5m) payment to them from PPI Del Monte Fresh Produce, a subsidiary of Polly Peck International.

However, the bank said it had no knowledge of the payment, and that no one had come forward to claim the money if indeed it was caught

up in the bank. Del Monte had intended the money to go to Credit Suisse First Boston, which was acting as the agent for a syndicate of banks to which the money was due. But the money was instead seized by a bank which was acting as an agent in paying the money to CSFB.

The bank is understood to have claimed that it had a right to set the money off against a debt due from PPI itself.

The action has brought strong protests from banks within the syndicate, which are out of pocket as a result. It has also caused considerable concern within Polly Peck, which faces difficulties in its day-to-day operations if it is unable to use normal bank payment channels.

Four people close to the transaction have identified Midland as the bank which seized the payment, although it continues to deny this.

Problems solving insolvency problems

David Owen on the difficulties a Polly Peck administrator would face

IF CURRENT attempts to resolve the insolvency problems of Polly Peck International proved unsuccessful, the group might end up in the hands of administrators appointed under insolvency law.

This would be in an attempt to secure either the survival of all or part of the company as a going concern, or a more advantageous realisation of its assets.

However, administrators who have handled companies of similar complexity and geographic range say such cases pose many problems, and the aims are often hard to achieve.

In cases where administrators are trying to realise the assets, the eventual pay-out tends to be subject to unacceptable delay as assets flow slowly towards the top of the corporate structure. Mr Peter Padmore, of Price Waterhouse and joint administrator of Atlantic Computers, the computer leasing group, has estimated that the process in that case "is going to run right through the 1990s".

The cost of this sort of exercise can also prove unpalatable.

SG Warburg, in its undrafted reconstruction proposals for British & Commonwealth, the collapsed financial services group, said that the cost of an administration "may be expected to amount to between 5 and 10 per cent of gross realisations". The administrator's remuneration and expenses are payable ahead of any other claims, except those of creditors with a fixed charge.

The basic purpose of an administration, regardless of its stated objective, is to buy time: to secure a degree of relief from creditors to enable the company's true position to be ascertained and/or to conduct disposals in an orderly manner.

Either way, the administrator's early tasks include determining whether or not the

individual companies within the group were solvent. This, in turn, entails having confidence in the group's internal information flows.

As Mr Tim Hayward of KPMG Peat Marwick McLintock points out: "Companies that collapse are generally associated with inadequate information flows." The process would therefore probably entail securing the co-operation of existing management to establish where principal reporting lines lie and despatching staff to major control points.

This would be particularly important with a group as geo-

graphically disparate as Polly Peck. An additional complexity in such a case might be provided by the political sensitivity of the group's interests in Turkey and northern Cyprus. "The relationship between any administrator and the Turkish government would be quite likely to be adversarial" is the opinion of one insolvency specialist.

The administrator's status as a court-appointed (as opposed to bank-appointed) official should, however, stand him in good stead during this information-gathering process, according to another specialist.

The solvency of individual companies would depend in part on whether they had relied in the past on parental support and, if so, whether they could survive without it.

"If a subsidiary had net assets of 5m currency units dependent upon a loan or

amounts owed by the parent of say 10m units," says Mr John Soden, joint administrator of Atlantic Computers, "you would have to assume that the net worth of that company had been shot to bits because it would be potentially relying on some dividend out of the administration which might be years down the track."

The existence of cross-collateralisation would be a further consideration.

"If you have got a situation where the parent company has guaranteed the local borrowings of a subsidiary, the bank is immediately going to run scared and that may bring

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down the pack of cards," Mr Soden explains. The extent to which trading companies within the group were stand-alone or interdependent in conducting their day-to-day business would also feature in calculations. The position of Polly Peck's three US fresh produce distribution arms might be one case in point, if they were dependent upon the supply of fruit and vegetables from other companies in the group.

"The whole approach is one of protection and trying to ring-fence hits to make sure that any interdependency is eliminated or controlled, so that at least you have manageable chunks," says Mr Soden.

Clearly, this process might result in one or more subsidiaries joining their parent in applying for protection from their creditors. In the case of Atlantic, the parent's main US

operating company was eventually forced to file for Chapter 11, in spite of being solvent in terms of its ability to meet its overheads. This was to forestall the efforts of several large creditors to improve their positions at the expense of other creditors.

Having ascertained the general solvency position, the administrator would need to exert control over those bits of the group that it hoped to retain or sell as going concerns. In this respect, it is important to recognise that the position of the parent with regard to its subsidiaries is simply that of the major (or only) shareholder.

Though this confers on the parent the right to make changes in the board of directors, this can seem a position of surprising remoteness. One insolvency specialist recalls, for example, being obliged to exercise control over a UK group's US operations through three intermediate holding companies.

In any case, administrators are often understandably reluctant to assume the responsibilities attached to an overseas directorship. "Frankly, I feel slightly nervous about becoming a director of, say, a US company," Mr Soden says. "At least with a UK company you know what your responsibilities are and what you are supposed to conform with."

In instances where the agent of future management buy-outs is in the air, the administrator may additionally be faced with dealing with directors operating under a palpable conflict of interest.

"There is a conflict in every single MBO," says one insolvency specialist. "The duty of the directors is obviously to safeguard the interests of the shareholders but at the same time they want to go and buy the company. You have got to take things at face value, but clearly you are going to approach the situation with some degree of scepticism."

EAST MIDLANDS

The Financial Times proposes to publish this survey on:

23rd November 1990

For a full editorial synopsis and advertisement details, please contact:

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UK COMPANY NEWS

Hewden Stuart dips 19% to £15.7m

By Clare Pearson

PRE-TAX profits at Hewden Stuart, Britain's biggest independent plant hire company, fell by 19 per cent, from £19.35m to £15.7m, in the half year to end-July.

Property disposals had contributed £1.5m to profits in the comparable 1989 period, so the fall in trading surplus was 15 per cent. Interest charges were lower at £1.68m (£2.25m) while depreciation amounted to £13.61m (£12.48m).

Earnings per share fell to 5.54p (7.27p). But the interim dividend was lifted by 10 per cent to 0.325p (0.295p) - in keeping, said Sir Matthew Goodwin, chairman, with the strength of the group's financial position. Cash flow remained very strong.

In the first half the group financed capital expenditure of about £20m (£22m). But indebtedness at the end of July amounted to only £17m, compared with nearly £30m at the same point in 1989. Shareholders' funds had increased to £110m.

During the second half capital expenditure was set to continue, though at a lower level, and borrowings were expected to fall, Sir Matthew said.

Turnover was £113.41m (£117.61m). There was a down-



Sir Matthew Goodwin: strong cash flow

turn in the merchandising division and other operations in the south also suffered a fall in sales. In other areas, turnover was maintained or increased, though margins came under increasing pressure throughout the summer months.

Sir Matthew anticipated there would be a further worsening of conditions in the construction industry. But a number of major projects scheduled to start next year, together with an expected upturn in the housing market, should lead to an improvement in the latter part of 1991 "assuming the world doesn't plunge into recession," he said.

On acquisitions he said "our hands are still deep in our pockets", although he thought opportunities to make well-priced purchases might arise during the next six months.

It would be hard to get excited about buying Hewden Stuart's shares just at the moment, but at least if you did you could expect to sleep at night - a luxury not necessarily compatible with other investments in the sector. Hewden Stuart was never going to achieve immunity from the general climate in the construction sector, but these results indicate yet again that it has not been by luck alone that the company has remained a long-term independent player in an industry that has attracted more than its fair share of nine-day-wonders. The only real concern analysts have about it is that Sir Matthew sometimes devotes so much time to observations on the general state of the economy it is hard to steer him back to the nitty-gritty of the results. With pre-tax profits of about £25m in sight for the full-year, the shares stand on a prospective p/e of 7, sound for the longer-term, especially as there may well be a further similar rise in the dividend.

COMMENT

On the specialist contracting side, the workload was building up for the petrochemical industry. The Clough Smith heavy electrical contractor, bought for £7.75m in April, was improving its profitability. Mr Bottier said the group had more than £11m net cash, which would be used to expand specialist contracting and property development on the Continent. Lilley retains a 29.9 per cent stake in Tilbury. One of its supporters in last year's £137m bid was Govett Strategic Investment Trust, which recently sold its 14 per cent investment to Philipp Holzmann, the German construction group. Mr Bottier said joint ventures were planned with Holzmann. Operating profit declined 13 per cent to £2.28m (£3.54m) on turnover of £107.1m (£109.88m). Net interest income rose to £1.7m (£2.02m). After a higher tax charge, earnings per share fell by more than 10 per cent to 30.9p (34.5p). The interim dividend is

Property decline leads to 8% downturn in Tilbury profits

By Jane Fuller

TILBURY GROUP, which last year narrowly escaped the clutches of Lilley, a rival construction company, saw pre-tax profits fall by 8 per cent, from £10.23m to £9.44m, in the first half of this year.

Mr Michael Bottier, managing director, said the profit decline had come in property development, English housing and through the loss of revenue after selling Tilbury Estate's tenanted homes in London's East End.

Main developments were Linwood, Scotland, which would absorb about £4m this year, the Aintree retail site, which was contributing a profit, and a new joint-venture project in Bilbao, Spain.

Scotland had led the way in housebuilding, but the English side had continued to languish. The latter only accounted for about 100 units out of up to 600 in full year.

The construction half of the business performed as last year. The best showing came from mainstream contracting, which was heavily biased towards the public services,

including the water companies. On the specialist contracting side, the workload was building up for the petrochemical industry. The Clough Smith heavy electrical contractor, bought for £7.75m in April, was improving its profitability.

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Lilley retains a 29.9 per cent stake in Tilbury. One of its supporters in last year's £137m bid was Govett Strategic Investment Trust, which recently sold its 14 per cent investment to Philipp Holzmann, the German construction group. Mr Bottier said joint ventures were planned with Holzmann.

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raised to 10.5p (10p).

Nu-Swift up at £17.05m in spite of Sicli sale

NU-SWIFT, the fire protection and cleaning group, lifted pre-tax profits by 4 per cent, from £16.4m to £17.05m, in the first half of 1990.

Following the sale of the holding in Sicli of France, turnover was reduced by £41m, and overall turnover fell to £187.52m (£221.19m). Sicli contributed only £4.07m (£12.84m) profit, but interest received on investing the sale proceeds brought in £9.14m.

Nu-Swift received £184m cash for its holding and the net profit of £115m on disposal was carried as an extraordinary credit.

The UK operation suffered from higher cost of materials and its contribution fell to £2.81m (£3.35m). But trading improvements in the second half are expected to provide satisfactory full year results.

Profit before amortisation of goodwill and tax rose to £16.1m (£17.25m). Earnings per share were 21.73p (19.78p) and the interim dividend is lifted by 1p to 8p.

NEWS DIGEST

TSW comes through tough year

TSW-Television South West (TSW) has come through a difficult year with "some satisfaction".

Taxable profits in the year to July 31, after much reduced exceptional charges, surged from £23.19m to £4.7m.

Turnover rose to £44m (£43.4m). TV Times contributed 15 per cent of the increase, while the other income and services 23 per cent.

Tax came to £2.13m (£2.13m) and the exceptional charges fell to £233,000 (£1.5m).

Earnings per share were 15.65p (13.95p) before exceptional charges and 13.54p (8.54p) after. The final dividend is 3.77p for a total of 5p (4.15p).

Murray Ventures nav ships to 335.9p

Murray Ventures, the Edinburgh-based investment group, saw net asset value fall from 369.1p to 335.9p at July 31. Tax

able revenue was up 55 per cent from £2.43m to £3.77m at the year end.

Underwriting commission rose to £23,584 (£7,795), as did franked income at £3.32m (£2.14m) and unfranked at £914,272 (£735,587). Administration costs were £231,655 (£180,065) and tax took £298,898 (£253,388).

Earnings increased to 11.85p (8.52p) per share. A 6.1p final is recommended, making 9.35p (7.4) for the year.

James Finlay lower in poor tea market

In spite of a £1m turnaround in its energy related interests, James Finlay, the overseas trading and financial services group, reported lower pre-tax profits of £4.42m, compared with £4.52m in the six months to June 30.

The shares fell 13p to close at 57p. There were lower profits in plantations, banking and finance services and confectionery and beverage manufacturing. The company said that the tea market had been poor for the past six months and trading in banking had been difficult.

The state of the tea market, the most important factor in the Finlay's performance, was unlikely to improve, the company added. "But we have been surprised many times before."

The geographic breakdown shows a major move towards the UK, where profits improved from £614,000 to £1.7m. The main upturn was in Australasia, down from £914,000 to £108,000 and Africa from £1,98m to £1.47m.

Group turnover was lower at £78.16m (£80.04m). Tax was £2.68m (£2.31m) and minorities took £5,000 (£15,000) for earnings per share of 2.4p (2.5p). An unchanged interim dividend of 2p is declared.

W&R Jacob gains 31% to £1.49m

W&R Jacob, the Dublin-based biscuit maker and food distributor, reported taxable profits up from £1.14m to £1.49m (£1.37m) for the 26 weeks to July 15.

The 31 per cent rise came on turnover of £282.06m (£278.78m). The interest charge fell to £74,000 (£128,000) through estimated tax increased to £258,000 (£155,000).

Earnings rose to 9p (8.5p) adjusted for rights issue) and an interim dividend of 3.25p (3p) is declared.

There were good results from two subsidiaries: Irish Biscuits and Golden Glow Nut.

Bridgend more than doubles to £0.43m

Bridgend Group, the wholesale distributor of electrical and electronic products, more than doubled pre-tax profits from £177,000 to £430,000 in the first half of 1990.

Mr Neil List, chairman, said that Brimley's, the group's specialist electrical wholesaler, had been recognised following the sale of the security division in May 1989. Group turnover fell from £7.34m to £2.7m.

The interim dividend is raised to 0.4p (0.35p) on earnings lifted to 1.65p (0.8p).

The company said contracts had been exchanged to acquire about 165 acres of land adjacent to Stocks Hotel & Country Club, near Tring in Hertfordshire, conditional on outline planning permission for a golf course being obtained.

Little change at Galliford

Profits were little changed at Galliford, the construction group, in the year to June 30. The taxable result rose 5 per cent from £2.78m to £2.93m on turnover up 13 per cent from £197.23m to £223.75m.

The comparable results have been restated to reflect the merger with Hodgson Group. Extraordinary costs of £56,000 represented provision against an investment in an overseas offshore less minorities, plus net profit on the sale of a subsidiary.

Earnings per share were 8.12p (7.95p). The dividend for the year is raised to 4.25p (3.5p), including a final of 3.3p.

Albert Martin shows 36% reduction

Albert Martin Holdings, the clothing manufacturer and distributor, reported pre-tax profits of £454,000 in the first half of 1990, a drop of 36 per cent on last year's £706,000.

Mr Michael Kidd, chairman, said that trading profit had been affected by a higher proportion of turnover and profit falling in the second half.

Trading conditions remained uncertain but sales in the third quarter had shown a substantial increase on the last year.

Turnover was £32.96m (£31.77m). After tax of £161,000 (£159,000) and minorities of £41,000 (£26,000) earnings per share were 1.1p (3.1p). The interim dividend is maintained at 1.6p.

£2.2m Spanish purchase by Willis Faber

By Richard Lapper

Willis Faber, the insurance broker which next week expects to merge with US broker Corroon & Black, has bought a 40 per cent stake in S&C Correduria de Seguros, a Spanish retail broker.

Willis paid £2.2m cash for S&C, which is based in Madrid and has offices in Bilbao, Seville, Santander and Teruel.

S&C was established in 1964 and handles most classes of commercial and personal insurance business.

Mr Maurice Kershaw, chairman of Willis Wrightson, has joined the board of S&C as deputy chairman. Mr Jaime Castellanos will continue as chairman and chief executive of the S&C.

The purchase is in line with Willis' aim of expanding its European operations. "It is the first of a number of steps we will be taking," said Mr Peter Stevens, head of corporate affairs.

Until its liaison with Corroon & Black was announced in June, Willis had serviced its clients' European needs via the Union network of brokers, established with its erstwhile US partner, Johnson and Higgins.

An extraordinary meeting of Corroon & Black shareholders is set to vote on the Willis Corroon merger on October 8.

IN BRIEF

BRITISH TELECOM has sold its 25 per cent holding in Startstream ("The Children's Channel"), to Flextech for £1.65m.

HEADSTONER HOLDINGS, a wholly-owned subsidiary of Sears, raised pre-tax profits by 27 per cent from £5.8m to £8.4m in the six months to July 31 1990. Interest payments put in £6.5m (£6.5m) and other income £1.9m (£100,000).

BROMSGROVE, specialist engineer, has made property disposals totalling £5.08m. These include an office block in Birmingham sold to The Monument Trust Company for £2.5m and part of Bromsgrove's freehold industrial site in High Wycombe sold for £185,000. GKN has sold its automotive aftermarket business in Australia to Echlin of Connecticut. Net proceeds estimated at £16.7m (£7.3m) which roughly matches net asset value.

JF PACIFIC WARRANT: Net asset value per share at the end of the year to June 30 stood at \$18.3, against \$16.4 adjusted interest on deposits rose from \$34,481 to \$319,795 (£115,293) and investment income was \$6,637 (£26,526). After tax of \$52,436 (\$39,788) deficit for year increased to \$1.83m (£1.7m). Directors plan a free issue of ordinary shares and warrants.

MERCHANT MANUFACTORY Estate Company, as part of its rationalisation, is selling two freehold investment properties: one at Mitcham for £2.25m and another, in Fulham, for £5.25m. In addition, Mr Ian Camm, the London-based finance director, has resigned and other directors have agreed to reductions in their remuneration.

VENTURI INVESTMENT Trust, which was listed in April, reported net asset value of 5.23p per ordinary share, 25.52p per income share and 199.02 per capital indexed share at September 30 1990. Six-month income was £153,686 after £42,783 tax and earnings per share 1.8p. Interim dividend is 1.3125p.

WELSH INDUSTRIAL Improvement Trust: Pre-tax profits amounted to £108,516 (£23,907) and earnings 5.71p (1.01p) per 5p share for year to April 5 1990. The single final dividend is 4p (1p).

Redrow Group
Another year of growth

Financial Highlights

	1990	1989
Turnover	£108.5m	£100.5m
Profit before taxation	£ 16.3m	£ 16.0m
Shareholders funds	£ 32.3m	£ 23.3m

- Net assets increased by 39 per cent.
- Gearing at 36 per cent represents a reduction for the third consecutive year.
- Redrow Homes: Sales growth achieved and forecast, despite current market conditions.
- Redrow Commercial Developments: Increased activity, with successful schemes providing substantial rental income.
- Redrow Construction: Significant progress with major advance in turnover.
- St. David's Hotels: First 120-bedroom 4 star hotel opening Spring 1991, with further schemes being progressed.
- Redrow Group is strongly placed to take immediate advantage of any improvement in the market.

S.P. Morgan (Chairman)

S.P. Morgan (Chairman)

The Annual Report may be obtained from The Company Secretary, Redrow Group Limited, Redrow House, St. David's Park, Clwyd CH5 3PW.



Galliford

Preliminary Results

	1990	1989 (Restated)
Turnover	£229.73m	£197.33m
Profit before tax	£10.31m	£9.78m
Earnings per share	8.12p	7.95p
Dividends per share	4.25p	3.9p

★ Increased turnover, profits and earnings per share in a difficult year.

★ Dividend increased by 9%.

★ Strong Balance Sheet.

Copies of the Report and Accounts will be available from 29th October 1990, and may be obtained from the Secretary.

Galliford plc

Wolvey, Hinckley, Leicestershire LE10 3JD

MULTI-CURRENCY BOND PORTFOLIO

Société d'Investissement à Capital Variable

2, boulevard Royal LUXEMBOURG

R.C. LUXEMBOURG B-24797

Shareholders are informed that the Extraordinary General Meeting of Shareholders held on August 31, 1990 has approved the changes proposed to be made to the Articles of Incorporation of MULTI-CURRENCY BOND PORTFOLIO (the "Company"), with effect from 24 October, 1990 and that all Shares outstanding have been reclassified as Class A shares.

New share certificates are available. During a period from October 29, 1990 to November 29, 1990, any share certificate previously issued by the Company may be applied for exchange, at no cost, at the office of BANQUE INTERNATIONALE A LUXEMBOURG, 2, boulevard Royal, Luxembourg, against surrender of the former share certificate.

After November 29, 1990, former share certificates will no longer be of good delivery on the Luxembourg Stock Exchange.

The revised Prospectus of the Company dated September 1990 is available at the registered office of the Company at 2, boulevard Royal, Luxembourg.

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FINANCIAL TIMES

NEW ISSUE October 3, 1990

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Price 100%

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COMMODITIES AND AGRICULTURE

EC Commission presents united front on reforms

By Tim Dickson in Brussels

STAINCH EFFORTS were made yesterday to defend the European Commission's long awaited proposals for cutting back global farm support, and to play down recent personal clashes in Brussels.

EC officials were at pains to emphasise that the 17 commissioners meeting late on Wednesday evening had unanimously supported the ideas of Mr Raymond MacSharry, the Irishman who handles the agriculture portfolio, though the final text shows some modifications made at the behest of Mr Frans Andriessen, the Dutchman in overall charge of the Uruguay Round negotiations.

How significant these are depends on who you listen to in Brussels - a sign perhaps that the squabbling has been over but at first glance the overall package would still appear to fall well short of what is being demanded by the US and the so-called Cairns Group (including Australia and New Zealand). The US is expected to call for a 70 per cent cut in farm subsidies, as opposed to the 30 per cent envisaged under the EC plan.

The main outline of the Commission's approach was already well known from earlier announcements and leaks but the accompanying table split out for the first time the implications for each of the main product sectors. It shows, for example, that the EC's offer takes 1986 as the base year and that support yesterday that the EC's calculations have already been reduced by 10 per cent in the arable sector and 15 per cent in the livestock sector.

Annual reductions in the EC's so-called Aggregate Measurement of Support - total price support, direct support and input subsidies - are to be cut into one total monetary figure

Aggregate Farm Price Support in the EC (million ECU)				
	In 1986	In 1990	Offered for 1990	Annual support cut to achieve target (%)
Cereals	15,621	14,424	10,355	4.0
Olive oil	3,063	3,177	2,165	7.4
Oilseeds and protein crops	3,047	3,186	2,133	7.8
Sugar beet	2,666	2,534	2,028	4.3
Livestock	40,701	38,227	28,461	4.7

Source: EC Commission

will range from 4 per cent a year for cereals to 7.5 per cent for oilseeds and protein crops between now and 1995.

As expected the 1986-96 reduction will be 10 per cent for other sectors such as fruit, vegetables and tobacco under the EC offer.

Much attention yesterday was focused on the final wording of the more detailed aspects of the Brussels package - apparently the subject of extensive discussion on Wednesday night.

Little appears to have been changed on the proposal for "tariffication" - the idea of replacing the EC's existing variable import levies and other non-tariff measures by a tariff equivalent comprising a fixed element accompanied by a "corrective factor" to take account of world market fluctuations beyond certain limits and to compensate for currency fluctuations. It was reported yesterday that the EC's calculations have already been reduced by 10 per cent in the arable sector and 15 per cent in the livestock sector.

Annual reductions in the EC's so-called Aggregate Measurement of Support - total price support, direct support and input subsidies - are to be cut into one total monetary figure

the original MacSharry proposal. Thus tariff quotas for these products - on which customs duties will be introduced gradually over a 6-year period - will be based on average import levels during 1986-88 increased by 6 per cent. Much of the speculation, however, centred on the Commission's offer on export subsidies - the payments to traders that bridge the gap between Community prices and world market prices and enable the EC to dispose of its surpluses.

Mr MacSharry has always said that these so-called refunds - much hated by the EC's trading partners - will come down automatically as EC internal support is reduced.

On top of this the Commission is proposing "the reinforcement of the rules and disciplines" applicable to export subsidies "and in particular that export subsidies should not exceed the amount charged on import" (from outside the EC). Some yesterday saw this as a hint of later flexibility as well as Brussels' readiness to quantify the measures flowing from the above measures and its undertaking that "in the course of negotiations and in the light of these results the Community will be able to re-evaluate this quantification."

Lower world coffee crop predicted

WORLD COFFEE production is likely to fall to 91.7m bags (60 kg each) in 1990-91, according to F.O. Licht, the German commodity statistics agency, reports Reuters from Rotterdam.

Licht's first forecast for 1990-91 is based on national crop years. Arabica output is seen falling to 65.18m bags from 67.33m while robusta production is forecast to rise from 26.52m to 26.54m. This means that for the third year in succession output is likely to fall below consumption, Licht says. It projects demand at about 96m bags. The decline primarily reflects a projected fall in Brazilian output to 22m bags, from 23.8m.

Surplus fears 'depress' world sugar market

SUGAR PRICES have been under pressure for the past month from the lack of physical output and the prospect of a supply surplus next season, according to the Reuters Report from E.D. & F. Man, the London broker, writes David Blackall.

Yesterday the London Daily Price for raws fell to \$255.80 a tonne - the lowest level since February last year - following the fall below 10 cents a lb for New York futures.

Man points out that a year ago preliminary figures suggested a substantial deficit of supply against consumption for 1989-90, although reservations were expressed about consumption forecasts.

"A year later, with the break

up of the Socialist hegemony of East Europe and the Gulf crisis, consumption prospects look far less encouraging whilst the quick response of the producers, particularly in the EC, has encouraged a potential 2.5m tonne increase in total world production," says the report.

It suggests that the market may remain under speculative selling pressure, particularly in the absence of major buyers for raws.

"The bearishness of the fundamentals, however, should not be exaggerated as the potential to add the forecast production surplus to stocks, particularly in the EC, could prevent the build-up of exportable surpluses."

The mud and misery of Soviet agriculture

Peasants are harvesting sodden crops with their bare hands, writes Quentin Peel

ON THE battlefield of Borodino, today just rolling green grass where a handful of horses graze around the grave of Prince Bagration, men once fought with bare hands and bayonets in the bloodiest confrontation of the Napoleonic wars. If you glance past the iron-and-gilt memorial, commemorating up to 80,000 soldiers who died on that day in 1812, you will see the sorry fields of the Borodino collective farm, dotted with sodden haystacks in the pouring rain. They are almost a fitting monument themselves to the demise of Soviet agriculture.

Five weeks of miserable weather have reduced the peasants of the Borodino collective, 75 miles from Moscow, to harvesting potatoes and beet with bare hands, lacking equipment to operate in the mud. A few fields of maize and barley, abandoned. When the frosts come maybe 10 per cent will be saved.

They are waiting for emergency assistance from Moscow for students or soldiers or workers or anybody who might come to lend a hand to save the crops. Yet already it may be too late. The old people don't remember having such bad weather ever before, says Mr Viktor Lapkin, the 44-year-old chairman of the collective. "We won't have enough animal feed for our cows this winter, and we are simply unable to gather the potatoes at all."

"For the whole month, every day it has rained. Not a single machine can go into these fields. We still have maize to harvest and the other grain. There are 200 hectares left."

"As for the potatoes, they will be impossible to store. If

SOVIET FARMERS are still badly behind targets for grain sales to the state, a senior official said yesterday, writes Leyla Boulton. Mr L. Tkachuk, deputy director of the State Committee for Food Procurement, said that state and collective farms had delivered just 64.5 per cent of state purchase orders as of September 24. Elsewhere, the government daily, quoted unnamed experts as saying that the state could expect to receive only 67m tonnes, or 78 to 79 per cent of the grain the farms had contracted to sell to it. The newspaper blamed the absence of a market economy for farmers' failure to deliver the grain despite increases of up to 90 per cent in the state purchase price.

you collect them now, they might keep two months. But no technique is possible now except using hand tools."

It is a bitter irony for the collective farm workers of Borodino, and all the farms of the Moscow region, that just when they are supposed to be going through a traumatic reorganisation of agriculture, they should be devastated by bad weather. For Mr Lapkin, an energetic agricultural engineer and a people's deputy in the national parliament, believes all the changes under way will mean a drop in production before any improvement.

"Of course production is falling," he says. "Any breaking of rules makes a decrease in production inevitable. Especially when what we are doing is a very fundamental change of the rules."

On the other hand, he seems to have a clear idea of the sort of revitalised collective farm system of the future. The biggest problem is in persuading the lethargic peasantry to go along with it. "We are trying to return to where we came from," he says. "To organise a genuine collective farm, where every peasant gives his plot to the development of the whole co-operative. The collective farm will be a union of small,

independent peasant units."

The 3,000-hectare collective produces milk, meat, cattle feed and potatoes. It has 400 workers, includes 12 small villages, and of course, the Borodino battlefield, with no less than 70 monuments to the men who died fighting Napoleon in 1812 and the Wehrmacht in 1941.

Mr Lapkin believes peasants who want their own land should be allocated up to 10 hectares each, and be encouraged to combine in small units of 15 to 20 together. Apart from the land, they will be allocated shares in the capital funds of the collective - currently valued at some Rm.

The collective itself will exist to give technical advice, service machinery and set up some food processing plants. A meat processing shop, a baby milk production unit, and a co-operative for silage and hay production are planned.

Yet changes so far are very modest. Five small groups of workers (eight in one, five in another, three in a third) have taken leases on land, and are now fattening calves for the rest of the collective. But the big changeover to the new system depends on a mass meet-

ing of the collective workers to be held next February.

"Not everyone wants to go this way," Mr Lapkin admits. "Those who want to work and live will agree. Those who don't won't agree to anything. Whatever conditions we offer them, they won't work."

The current system, he admits, destroyed all incentive. "We tried to take the land off the peasants. They thought you should work on the land in the same way you work in a factory. That was a most dangerous idea."

"Work on the land demands another approach: it demands inheritance of land, the transfer of experience from one generation to another."

At the entrance to the collective farm headquarters - a dilapidated single-storey building, in a similar state of disrepair to the district buildings - stands a slogan to the new ideology: "Land needs a master - not for one day, not for two, but for his whole life."

Yet Mr Lapkin is ambiguous on the issue of land ownership, reflecting the confusion over property that goes all the way up to President Mikhail Gorbachev himself. "We must have ownership of land," he says. "Without owning the land, nothing will work. On the other hand, buying and selling the land should be controlled by the state, by the local soviet."

He sees land ownership as a form of leasehold, with any transfer other than inheritance subject to the veto of the local soviet. The state, he says, should control the land, but the local soviet should control the use of the land, and the urban mafia: they would buy up the land, and

return the peasants to a state of serfdom.

"The idea now is that the peasants don't have money, and cannot buy their land. That is why there should be certain rules and regulations. The people who have the privilege to live nearby. Now the money is with the black mafia (on a free market). They will buy the land and make people work for them as slaves."

Uncertainty about land ownership is one grey area. Another is whether the collective farm mentality is really changing. Drive a few miles back down the road to Moscow, and you pass a big new village complex where urban-style apartments are being built for the farm workers. At least temporarily, it could transform the terms of trade in favour of agriculture, with food shortages leaving the impoverished countryside far better off than the starving cities.

Mr Lapkin is convinced he has to offer good facilities, not least because he is desperate to attract some young blood back from the cities. The rural population is rapidly ageing and he maintains that 400 workers on 3,000 hectares are not enough. Ironically, the current collapse of the Soviet economy could be a blessing in disguise. At least temporarily, it could transform the terms of trade in favour of agriculture, with food shortages leaving the impoverished countryside far better off than the starving cities.

On the other hand, if the reforms do not work fast enough, there is always the battlefield of Borodino. Thanks to glamorisation, perhaps tourism will work where farming fails. But it will hardly help the poor Soviet consumer.

Shearson predicts lower prices for lead and zinc

By Kenneth Gooding, Mining Correspondent

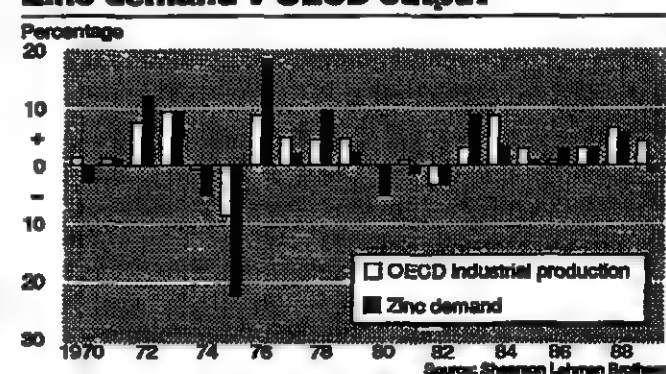
THE OUTLOOK for base metals demand has been dimmed by the Gulf crisis, but there is unlikely to be a repetition of the previous oil-associated recessions, in 1974-75 and 1979-82, when prices fell sharply and remained depressed.

This is the main conclusion in Shearson's latest annual review of the lead and zinc industries.

Shearson's economists are more pessimistic than most and are forecasting recessions in the US, Canada, Australia and the UK as well as much slower economic growth in Japan and Germany. They suggest this will cut economic growth in the OECD countries from 2.5 per cent this year to only 0.8 per cent in 1991. This will lead to little or no growth in base metals demand, suggests the author, Mr Neil Buxton.

However, in contrast to past

Zinc demand v OECD output



recessions, there will be at least some growth, he predicts. As for base metals, the outlook is not as bleak as in the 1970s because the newly industrialised countries now account for a bigger proportion of total metals demand; substitution will not be as severe as in previous oil shocks; capacity utilisation rates are higher and supply problems are likely to remain a feature; and stocks will be rebuilt.

But Mr Buxton emphasises that the 3-year bull market in metals has certainly ended and prices are now heading down.

"As the tightness in metals supply eases, or is perceived to ease, there is a risk for prices to fall quite sharply."

The London Metal Exchange zinc cash price in Shearson's "best case" estimates is forecast to average 72 US cents a lb this year, 50 cents next year and 62 cents in 1992. The average LME lead cash price is forecast to be 85 cents a lb this year, 80 cents next year and 25 cents in 1991.

Mr Buxton warns that the forecasts are based on the assumption that oil will average about US\$27 a barrel next year and that that price will be optimistic, lead prices could average less than 25 cents a lb and zinc about 45 cents.

Shearson sees production of refined zinc this year falling from 5.22m tonnes in 1989 to 5.16m tonnes next year and to 5.43m tonnes in 1992. Consumption is predicted to fall this year to 5.17m tonnes from

5.21m tonnes last year but move up to 5.25m tonnes in 1991 and to 5.45m tonnes the following year. Zinc stocks, forecast to represent only 5.5 weeks of consumption this year, will rise to 8.5 weeks in 1991 but to be back at 5.9 weeks in 1992.

Refined lead output, 4.41m tonnes in 1989, is predicted to go to 4.48m tonnes this year, to 4.55m tonnes in 1991 and to 4.62m tonnes in 1992. Consumption, 4.43m tonnes last year, is forecast to move to 4.46m tonnes this year, to 4.48m tonnes in 1991 and to 4.62m tonnes in 1992. Lead stocks will represent a minimal 4.1 weeks of consumption this year, Shearson suggests, rising to 4.6 weeks next year and ending to 4.5 weeks in 1991.

Annual review of the world lead and zinc industries: 1990, Shearson, 1 Broadgate, London EC2M 1EA.

MARKET REPORT

Cash lead rose sharply on the LME yesterday, reflecting increasing tightness of supplies. A premium for cash metal over three-month of \$9.50 a tonne emerged, following Wednesday's discount of \$2.50. The market's move away from the \$405/\$410 support band had been constructive, encouraging trade enquiry, which was absent during the recent decline. Zinc prices absorbed earlier profit-taking and merchant selling during late afternoon trading with prices returning to the day's highs to close firm, traders said. Dealers said that underlying consumer demand was helping to maintain

zinc's technical rally. Chartists are looking for a test of \$1,400/\$1,420 a tonne. Copper prices moved ahead - traders said the market was trying to consolidate after rallying on general short covering from Wednesday's lows, which were established by influential trade houses selling against options positions. On the London bullion market gold ended a brisk afternoon session on a firmer note after the record fall of the dollar against the D-mark, dealers said. It reached \$399.25 a fine ounce before profit-taking emerged.

Compiled from Reuters

London Markets

SPOT MARKETS	
Cash lead (per tonne)	+0.1
Dual	\$31.85-1.55p +0.80
Brent Blend (dual)	\$37.40-7.50 +1.32
Brent Blend (November)	\$36.35-6.48 +1.30
WTI (11 pm est)	\$24.85-5.50p +1.44

Oil products	
(NHE prompt delivery per tonne CIF)	
Premium Gasoline	\$416-421 +8
Gas Oil	\$236-238 +14
Heavy Fuel Oil	\$142-144 +7 1/2
Naphtha	\$375-380 +1 1/2
Petroleum Argus Estimates	

Other	
Gold (per troy oz)	\$387.00 -6.80
Silver (per troy oz)	\$47.25 +2
Platinum (per troy oz)	\$446.00 +5.8
Palladium (per troy oz)	\$389.00 -0.20

Aluminium (free market)	
Copper (US Producer)	136c +4
Lead (US Producer)	45c +4
Nickel (free market)	462c +18
Tin (Kuala Lumpur market)	16 1/2p -10
Tin (New York)	38c -1
Zinc (US Prime Western)	75c -1

Cattle (live weight)	
Sheep (dead weight)	126.25p -1.02p
Pigs (live weight)	74.14p -3.40p
London daily sugar (raw)	\$255.80 -6.80
London daily sugar (white)	\$304.00 -6.80
Tale and Lyle export price	\$243.50 -5.80
Barley (English feed)	\$116.00p -0.13
Maize (US No. 3 yellow)	\$137.00p +2
Wheat (US Hard Northern)	390

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id. B Preference dividend passed

a: assumed; b: Pro forma figures; c: Dividend paid to date.
 Figures based on prospectus or other official estimates for 1990-91. d: Dividend and yield based on prospectus or other official estimates for 1990-91. e: Dividend and yield based on prospectus or other official estimates for 1989-90. f: Dividend and yield based on prospectus or other official estimates for 1988-89. g: Dividend and yield based on prospectus or other official estimates for 1987-88. h: Dividend and yield based on prospectus or other official estimates for 1986-87. i: Dividend and yield based on prospectus or other official estimates for 1985-86. j: Dividend and yield based on prospectus or other official estimates for 1984-85. k: Dividend and yield based on prospectus or other official estimates for 1983-84. l: Dividend and yield based on prospectus or other official estimates for 1982-83. m: Dividend and yield based on prospectus or other official estimates for 1981-82. n: Dividend and yield based on prospectus or other official estimates for 1980-81. o: Dividend and yield based on prospectus or other official estimates for 1979-80. p: Dividend and yield based on prospectus or other official estimates for 1978-79. q: Dividend and yield based on prospectus or other official estimates for 1977-78. r: Dividend and yield based on prospectus or other official estimates for 1976-77. s: Dividend and yield based on prospectus or other official estimates for 1975-76. t: Dividend and yield based on prospectus or other official estimates for 1974-75. u: Dividend and yield based on prospectus or other official estimates for 1973-74. v: Dividend and yield based on prospectus or other official estimates for 1972-73. w: Dividend and yield based on prospectus or other official estimates for 1971-72. x: Dividend and yield based on prospectus or other official estimates for 1970-71. y: Dividend and yield based on prospectus or other official estimates for 1969-70. z: Dividend and yield based on prospectus or other official estimates for 1968-69. aa: Dividend and yield based on prospectus or other official estimates for 1967-68. ab: Dividend and yield based on prospectus or other official estimates for 1966-67. ac: Dividend and yield based on prospectus or other official estimates for 1965-66. ad: Dividend and yield based on prospectus or other official estimates for 1964-65. ae: Dividend and yield based on prospectus or other official estimates for 1963-64. af: Dividend and yield based on prospectus or other official estimates for 1962-63. ag: Dividend and yield based on prospectus or other official estimates for 1961-62. ah: Dividend and yield based on prospectus or other official estimates for 1960-61. ai: Dividend and yield based on prospectus or other official estimates for 1959-60. aj: Dividend and yield based on prospectus or other official estimates for 1958-59. ak: Dividend and yield based on prospectus or other official estimates for 1957-58. al: Dividend and yield based on prospectus or other official estimates for 1956-57. am: Dividend and yield based on prospectus or other official estimates for 1955-56. an: Dividend and yield based on prospectus or other official estimates for 1954-55. ao: Dividend and yield based on prospectus or other official estimates for 1953-54. ap: Dividend and yield based on prospectus or other official estimates for 1952-53.

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FINANCIAL TIMES SURVEY

OFFICE SYSTEMS & TECHNOLOGY

SECTION III

Friday October 5 1990



While the influx of electronic equipment has already transformed the office, greater

changes are on the way as managers and developers discover that with the new technology comes a need to rethink the structure of management and the design of buildings, writes Della Bradshaw

New frontiers in flexibility

COMPANIES IN almost every business sector now see the successful exploitation of information as one of the most effective tools in beating the competition. Most realise that to achieve this requires the successful use of information technology equipment.

Wrongly selected electronic gadgets can prove costly and ineffective and they can seriously damage the profitability of the company.

As a growing number of companies realise the benefits of office technology, the impact of equipment on the office environment grows too, changing the work we do and how we do it. The changes now mean that technology is driving the design of offices and buildings.

The past decade has seen its share of changes: secretaries who were closeted in typing pools to another sound of their clattering typewriters are now being moved to open plan offices using much quieter word processors or personal computers.

But the next ten years will bring even more changes, and in their wake even more challenges for the office designer and the office manager.

Driving many of the changes will be the PC or workstation. One in every three or four office workers now has a PC on his or her desk, but that will grow rapidly to one per desk in the mid-1990s, predicts the information technology consultancy Butler Cox. So, too, will there be more facsimile machines, scanners and portable phones.

With this influx of electronic gadgetry will come the need for changes in the infrastructure of a building. It is no longer just a case of dropping a PC on a desk here, or plugging in a fax machine there.

The burden of office technology has proven too much for many older office buildings which were not designed with the computer in mind.

A recent survey conducted in the City of London by Butler Cox revealed that 80 per cent of available office space was unsuitable for City companies. The buildings were too inflexible to support the intense computing and communications requirement of financial institutions.

The situation is improving, but developers are slow to build in the infrastructure to cope with the huge amounts of



As use of technology increases, especially in the financial sector, the need to change the office infrastructure is becoming urgent

cabling that networked computers and high speed communications demand. By giving over prime office space to ducts they are cutting back the "square footage" and so the price they can charge for the office.

More forward-looking developers, such as Olympia & York, which is building Canary Wharf in London's Docklands, try and build in flexibility by planning for technology-intensive users. "We're working on the assumption that all the offices will be filled by banks, which are very heavy users of computer and communications equipment," says Mr Malcolm Humphreys, telecommunications manager on the project.

Each of the 26 to 28 buildings in the finished project will be served by banks of phone lines from British Telecom, Mercury Communications and the local cable television company.

It took nearly two years of planning to ensure each phone company had two access points into each building - so that the tenants have two different ways of sending calls out, deemed essential by many financial institutions which fear a potential loss of business if their communications are severed.

Because Canary Wharf is largely a speculative development, Olympia & York has had to take the same approach to the design of the buildings

interiors, with the ducting and raised floors needed to handle computer cabling.

Others are more sceptical about whether planning now will result in the required flexibility later. "I think that architects and businesses have to adopt the philosophy that a building has no degree of permanence," says John Cossins, architect and senior partner at Thomas Saunders Partnership.

He argues that the only permanent structures should be the basic steel and concrete infrastructure, and possibly the floors, but that office tenants should be resigned to refurbishing and refitting their buildings on a regular basis to cope with changing demands.

Predicting changing demands of office technology will be difficult. But equipment manufacturers believe there are several major trends in the office technology market.

● The increase in the number of computers - both PCs on the desk and main processors in the computer centre - could bring bad news for the office developer, says Mr Peter Bacon, head of the building technology group at Butler Cox. About 10 per cent of the space in modern buildings could be required to house the technology - ducts for computer wiring, specially-cooled computer rooms and under-floor cabling.

Even if contractors have

accepted the idea of the computer room, many of them have not considered all the implications, says Mr Bacon. The raised floors, used to house the cabling, have to be deeper than in general purpose offices - about 450 mm instead of the usual 200 mm.

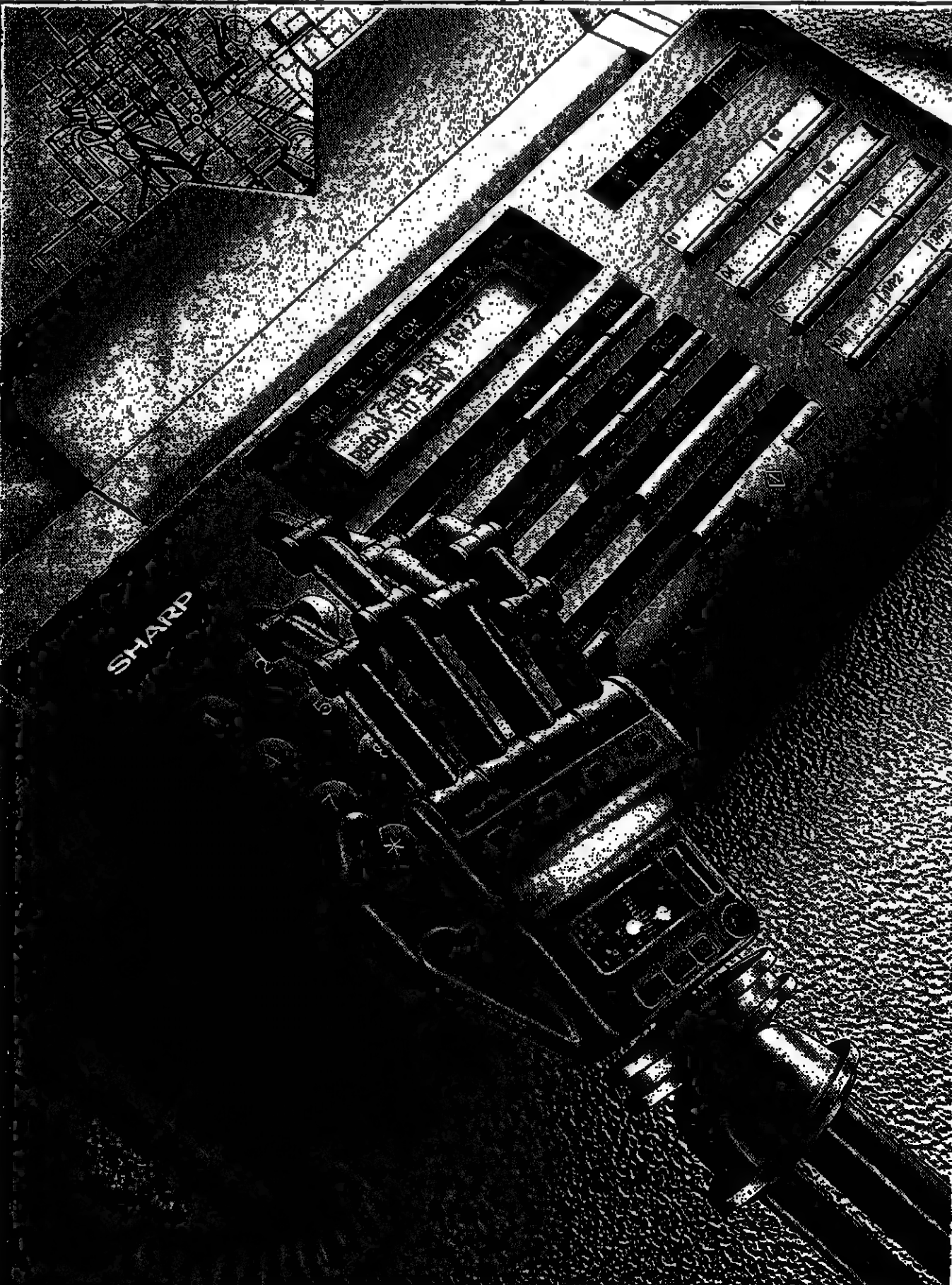
● The increasing number of PCs with colour screens - up to 40 per cent on present reckoning, and growing all the time - will increase the demand for colour printers and photocopiers.

● The increasing number of PCs with colour screens - up to 40 per cent on present reckoning, and growing all the time - will increase the demand for colour printers and photocopiers.

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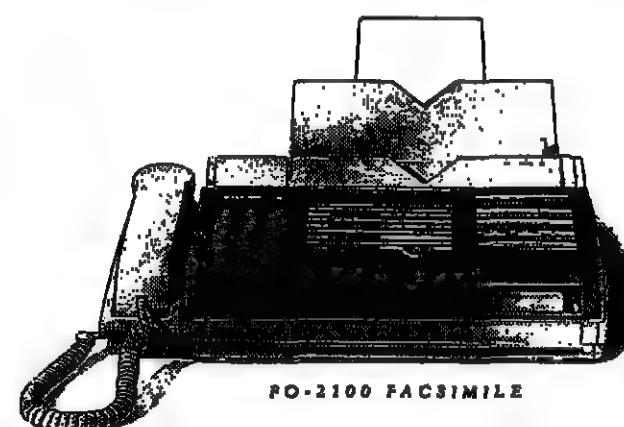
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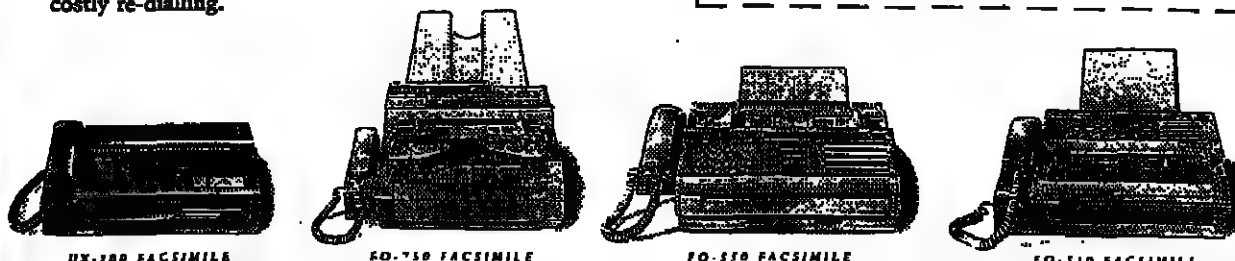
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OFFICE SYSTEMS & TECHNOLOGY 2

Equipment is becoming more powerful and versatile, discovers Della Bradshaw

Personal computers come of age

TEN YEARS ago the office computer system was a mainframe or mini-computer which was locked up in a specially-cooled office where only the technically-minded dared tread.

It was a scapegoat machine blamed for everything from the late arrival of Friday's pay slips to mistakes in the accounting procedures.

Ask a company employee to point out the office computer today and they are likely to indicate a sleek white personal computer with a colour screen sitting on their desk. It will be operated by a typewriter-like keyboard or a mouse and probably linked by a local area net-

work to printers and other sleek white machines.

The coming of the age of the personal computer as the mainstay of office technology has been both rapid and pervasive. Smaller companies which would never have dreamt of having a computer system five years ago now have the ubiquitous PC to run their accounts, organise their sales forecasting or operate word processing software.

Meanwhile PCs are replacing dumb terminals in larger offices in what has become known as "client-server computing". Data from the large computer system can be downloaded on to the PC for manip-

ulation or local storage. Even senior managers have stopped boasting that they have never touched a keyboard.

The overwhelming popularity of the PC is reflected in the accounts of all the major computer companies: the PC now generates more revenues than any other piece of equipment. Last year \$67.5bn (£36.10bn) worth of PCs were shipped worldwide - an increase of 31 per cent over 1988, according to Dataquest, the Californian information technology consultancy.

In the UK, companies such as Amstrad, with its low-cost word processor and general purpose PCs, have helped

secure the position of the PC in the smaller office.

Meanwhile more powerful machines are appearing on the desks of staff formerly loathe to use the equipment - the chairman or managing director, for example.

One application promising terrific growth potential is executive information systems (EIS), which allows company bosses to dip into the corporate database and extract and analyse data.

While miniaturisation means PCs are becoming ever more powerful and able to run increasingly complex software, the falling cost of computer hardware means that the work-

station, traditionally the tool of the engineer or designer, is meeting the PC halfway, and finding its way into the office environment too.

Leading the pack is Sun Microsystems, which, earlier this year, launched a workstation priced at \$4,000 - comparable in price to some powerful PCs. When workstations made their debut in the 1980s they cost hundreds of thousands of dollars. Others workstation manufacturers are likely to follow Sun's lead.

The workstation is likely to find a home in areas where office employees need to process huge amounts of data at speed. Desk-top publishing is one example, as well as other areas which rely heavily on computer graphics or number crunching - complex spreadsheets or financial modelling, for example.

For many in the computer industry - let alone the user of computers - the distinction between the PC and workstation is extremely blurred. Some manufacturers say the workstation is characterised by speed and power.

A workstation must have the "three Ms" - one megabyte of memory, one Mips (million of instructions per second) of performance speed and a million pixels (picture elements) on the screen. Others meanwhile put it down to the central processor: it has to be a 32bit system.

Others believe the difference is more fundamental, and is determined by the operating system it runs - Unix is often seen as the workstation operating system. Bill Passmore, head of Sun Microsystems in the UK, believes a workstation has three characteristics. Firstly it has a sophisticated user interface, using pictorial



Increasingly complex software means the workstation is meeting the PC halfway

icons on the computer screen. Secondly it is powerful enough to give an instant response to the user. Thirdly it has advanced communications and can share tasks around a network.

The large processing power of workstations, combined with falling prices, has led them to be considered by companies as a way of increasing staff productivity, especially among highly-paid staff or in areas where employees are difficult to recruit.

But workstations do have their drawbacks. Until recently, one of the problems in using a workstation for clerical and general office tasks was that there was little pack-

aged software to run on it. Over the past year there have been movements afoot with many of the major software houses announcing that they have adapted their popular MS-Dos spreadsheet, word processing and general business software packages to run on Unix-based machines.

While the PC is facing competition from the top end of the market, it is also being threatened from smaller machines. The growth in the laptop computer market is continuing. The worldwide market for laptops was worth \$3.5bn in 1988, more than three times the 1987 figure, according to Dataquest. Market leaders in the laptop market are Toshiba, Zenith

and Compaq, which are competing with the traditional desk-top computer makers such as IBM and Apple.

The latest competitor to the PC is even smaller, the pocket-book computer, which weighs just a few pounds and is the size of an A4 sheet of paper. This market is dominated by Japanese manufacturers, along with Palm of the UK.

But perhaps most fearsome of all to the PC vendor is equipment where two powerful technologies - the laptop and the workstation - combine. Toshiba, for example, has launched a workstation in Japan, which packs the processing power of the workstation into a portable laptop unit.

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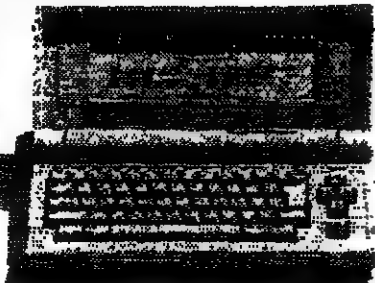
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PORTABLES

Laptop no longer a rarity in the market

THE long promised portable computer revolution appears to have finally arrived. The business person who works at home or on the move with his or her laptop is no longer a rarity. The portable at work is no longer a curiosity, merely a business tool.

The impression that the portable revolution had taken off is confirmed by the rapid increase in the number of machines sold. European sales of portables have increased from about 129,000 units in 1987 to approximately 250,000 in 1988. Data Quest, the US based market research company, estimates that last year sales reached 482,000 units and during the first six months of 1990 as many as 340,000 machines were shipped.

Elsewhere, portables are also selling well. In Japan, laptops now represent 46 per cent of the personal computer market - a level of penetration far greater than earlier expected by manufacturers. Only 18 months ago, Toshiba, the world's largest manufacturer of portables, had predicted that laptops would represent 70 per cent of personal computer sales at the end of the decade. In Japan that target could well be beaten by 1995.

Portables have taken off because increasing performance of the machines means the consumers no longer have to compromise when using them. In addition, portable computers have finally reached the stage when they can merit the name "portable". Early machines were more lap crushers than lap tops. The industry is now talking about palm tops.

The most significant remaining hurdle to overcome remains colour, however. For those who have never used a colour screen, colour may appear something of a luxury. But even for something as simple as differentiating between text with different word processing codes, colour can prove invaluable. Moreover, it is almost impossible to obtain full value from the latest generation of software, such as Microsoft's best selling Windows 3, without colour.

Certainly, Mr Christoph Selig, the Deputy General Manager for the Marketing Division of Information Processing Systems at Toshiba Europe, believes that colour will be the big issue for the next 12 months.

He believes that colour will represent a significant breakthrough, allowing portables to really penetrate the desk top replacement market. Although he admits the colour will initially be expensive he says it is not Toshiba's aim to sell the products at premium prices. As soon as quantities increase, the cost of colour will fall to reasonable levels, he says.

The main problem about colour, according to Mr Selig, is



Toshiba's T1800 takes portable desktop publishing

screen technology. He says that LCD technology is too slow to be used successfully with windows and mice. The enabling technology will be thin film transistor equipment which offers brilliant colour and better contrast than the cathode ray tubes now used in desk top machines.

A further reason for the rapid expansion of the portable market is the soaring cost of the machines. Consumers no longer have to pay significant premiums for portability.

Nearly every important supplier of personal computers - give or take IBM which has had a couple of disastrous forays into the market - has launched a portable machine over the past year.

The rapid growth of the laptop market - which has coincided with other computer sectors experiencing difficulties in reaching double digit growth - has proved irresistible for most computer companies. Some non computer manufacturers have even been tempted - Nikon Steel is reported to be planning a machine.

However, at the same time the rapid expansion in the number of portable suppliers, sales growth has started to slow and is no longer at the heady annual rate of 96 per cent achieved two years ago. High interest rates in the UK, concerns among West German companies about capital expenditure before unification and economic worries in France have managed to affect growth.

Those portable companies unable to maintain their margins through technological features have been forced to cut their prices. This has been particularly true in the heavier end of the market where the discounts available on five to 7.5kg battery-operated machines have grown ever larger in recent months. Even

Toshiba the European market leader, has launched price promotions in Belgium, France, Italy, Switzerland and West Germany. Compaq has also been cutting prices.

Nevertheless, in spite of price cuts the most recent figures from Data Quest show that Toshiba's share of the market scarcely fell in value terms from 36.9 per cent in 1989 to 35.5 per cent during the first half of 1990.

Mr Selig says that Toshiba's mainstay is its distribution network: the company has penetrated about 60 per cent of European IBM dealerships. Although the company has been experimenting with mail order in West Germany it remains committed to its dealers and believes that its relationship with them remains one of the most significant barriers for new entrants.

One of the methods of maintaining the fidelity of distributors is to offer a wide range of products, according to Mr Giancarlo Risone, the vice-president for marketing at Compaq Europe and the company's International Divisions. He argues that it is difficult for new entrants to offer dealers a credible range of products, even if they manufacture a machine with interesting technology.

At Toshiba, Mr Selig points out that the recent squeeze in the market has resulted in vendors reducing the number of different suppliers that they stock.

"The latest technology may be interesting from a journalistic point of view, but the average user couldn't care less," says Mr Selig. "Rather, they are interested in a full line of products which match his or her requirements, as well as reliability and after sales service."

Paul Abrahams



A digital copier: a new era of creative copying

COPIERS

Full colour not yet ready for office needs

COLOUR COPYING has been slow to arrive, but it now seems set to revolutionise not only the graphic arts and reprographics but even business communications. Suppliers are touting market research showing that in three or four years 50 per cent of all copying will be in full colour, with 40 per cent of that general office copying.

We live in a multicoloured world, it is argued, not a monochrome one, and in every other aspect of our lives colour is the norm - clothing, buildings, television, business and graphics. Hence the inevitability of colour copying.

Certainly colour copiers have already graduated from copy shops to offices successfully - but the offices concerned are design studios, advertising agencies, cartographic specialists and others whose line of business is the handling of colour originals.

On this fertile ground colour copiers come into their own, not only as straightforward copying devices but because, in the case of digital colour copiers, the originals can be treated as raw material in the creation of other documents. Using these copiers, the colour, or colour accent, of an original can be changed, images can be enlarged, reduced, tilted, rotated, reversed or distorted for artistic effect.

But most general office documentation is black and white so the office requirement for colour copying remains debatable, although if full colour copiers were as fast and inex-

pensive to buy and run as black and white everyone would use them.

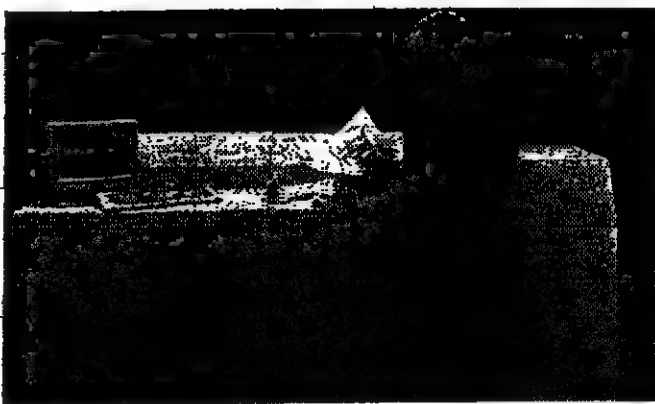
But they are not. All colour copying technologies are slower and more expensive than black and white. Typical machines can only manage five to seven copies per minute (typical black and white copiers are at least three times faster) and cost - at the most useful creative digital end of the market - from £12,000 to £25,000. A typical black and white copier is under £5,000.

There are colour exceptions but with disadvantages. Brother has a very slow and basic model for £5,000, and Kodak a non-creative machine which colour copies at 28cpm, but at a price of £27,500 while Canon's fast and extremely sophisticated bubbleJet colour copier, for originals of up to A4 size, is priced at £70,000.

It seems colour copiers are not suitable for broad and butler office use - but then office needs may change.

At present the colour copying market in the UK, of which Canon has a 78 per cent share, consists of 22,000 installed machines using four different technologies. The runners in the field are Canon and Panasonic with digital-xerographic models; Kodak, Ricoh, Infotec and Sharp, with one analogue-xerographic machine each; and Konica with a machine using a dry-photographic process; and Brother with the cheapest machine using encapsulated ink Cycolor technology.

Laura Blair



High-volume printing of financial documents

A CONCEPT called "demand printing," using the latest developments in LED (light emitting diode) technology, has been introduced by Kodak in the UK.

The system, which offers sophisticated document production, is the EktaPrint 1392, model 24, (illustrated above) and is capable of printing up to a million impressions a month. It has the capacity for up to 3,500 sheets of 75gsm paper, in two paper supplies.

High-speed "demand printing" has particular applications for in-house printing departments in the financial services market, since the 1392 system can quickly add updated information to documents within a standard format, allowing the very latest data to be included in company reports.

The elimination of large stocks of documentation provides significant cost benefits to users, since documents can be frequently

revised and updated with the system, claim the makers who have set up several test sites for the printer in the UK. The system aims to boost document-control facilities, since reports need only be produced when required, with less demand on in-house print departments to monitor large stocks of documentation, thus making the print room more effective.

The EktaPrint 1392 puts images on paper electro-photographically, allowing the user to print on-demand at speed and in high volume. The LED print head system achieves a resolution of 300 dots per inch.

A powerful raster image processor, comprising three MC88000 microprocessors, enables rapid processing on the system. An in-built memory, with 18Mb RAM and 20Mb hard disk, allows documents to be printed "full-set" while allowing the key operator to proof or extract early copies, as required, for correction.

Laura Blair finds that a wide range of creative options is no longer a priority among copier users

Demand moves from features to reliability

TODAY THE buzzword in office copying is "reliability". Not so long ago it was "features". And it is easy to see why suppliers have redrawn their battle lines.

Office copying is a large market with an installed base of 700,000 in the UK, including 200,000 "personal copiers", most of them used as office machines - but this is a mature market, most sales consisting of replacements for existing machines. Users are now thoroughly familiar with copying technology and what the machines can do.

Users have proved less interested in creative features such as colour and editing than in the bread-and-butter activities of making fast single copies, or running off duplicates of multi-page originals, with as much speed and as little fuss as possible.

Suppliers are responding to the users' call. Ranges are being extended upwards into the high speed/high volume area, broadly defined as upwards of 60 copies per minute and 70-100,000 copies per month.

New, simpler versions of many models are also being offered as alternative choices. The much-heralded digital/laser copying technology remains confined, as far as

monochrome black and white copying is concerned, to a couple of taken models.

However, terms such as "high-speed", "high-volume" and "simpler" have acquired new nuances since the days when everyone had to queue up for their turn at the company photocopier.

People are talking about true speed and - time being money

Users want speed with as little fuss as possible

- true cost: meaning how long it takes staff to go from their working place, to make the copies and return. Plus the unquantifiable length of time spent trying to negotiate the elaborate control panels for all the "clever" copier modes.

Similarly, high-volume copiers are now popular because of their capacity and reliability, and not necessarily because the users want them for long copying runs.

Fewer maintenance calls and less frequent paper loading, as well as automatically fed originals with automatic sorting and stapling of copies, are all being perceived as convenient features - whether high-vol-

ume copying is needed or not. "Speed and reliability have become synonymous with convenience," said Mr Jolyon Baldwin, marketing director of Canon copiers division.

"Economic pressure has prompted companies to automate, ending up with fewer but more qualified and expensive staff. It is therefore more important for companies to save their staff's time, and also to pamper them more, by providing faster, more practical, more ergonomic machines, closer at hand," he said.

A pampered environment in copier terms means more copiers per building, more copiers per department and more per desk. This is not entirely new - "decentralised copying" is already a feature of many offices - but it has recently become much more popular. The copying market, which has been static for a long time, has responded with a 10 per cent growth rate.

Most new machines at every level - desktop, mid-range, high-speed - are faster and more reliable than those they replace. Although mid-range 30-40 pages per minute copiers make up the bulk of the market, Japanese manufacturers like Canon and Sharp, are beginning to turn their attention to the high-volume area.

with high-speed models aimed at monthly copy volume of 150,000.

Whether this upward mobility will affect the balance of power in the copier world remains to be seen. Canon commands a 26 per cent market share, followed by Xerox - still concentrating on the high and very-high volume end - with 17 per cent. Gestetner, Kodak and Océ also have small stakes in the rarefied top-end sector.

But the rest of the market is dominated by Japanese suppliers, with Sharp slightly ahead of a pack which also includes Ricoh, Panasonic, Minolta, Toshiba, Mita and Konica.

As for the budding enthusiasm for features simplicity, everything is relative. "Basic" now includes features that two or three years ago were considered advanced: such as enlargement and reduction zoom copying, A3 size-for-size and (optional) double-sided copying. But there is a willingness to dispense with the so-called "creative" features, like colour highlighting or editing by moving or erasing nominated areas of the original when copying. Some suppliers argue this is because features such as colour and editing are still relatively new features; others maintain they are not

new, but irrelevant.

Of adding spot colour to black and white copies, Mr Robert Robb, Group Marketing of Sharp and facsimile division says: "Many users simply don't use it; we know this from the small number of replacement colour cartridges sold."

Editing can only really be done on a digital copier, which converts the scan of the orig-

inal into digital signals and can manipulate the original at will. Many now believe that a new era of creative copying will dawn when digital copiers begin break cover.

However, Canon argues that digital black and white copiers full of editing features are not a future technology at all, but a yesterday technology - they introduced the first laser copier to the market four years ago, and this has now been superseded by full-colour digital copiers.

The kind of users who need elaborate editing, Canon says, need it almost entirely for colour originals, or to turn dull black and white originals into

Suppliers argue digital technology is the way forward

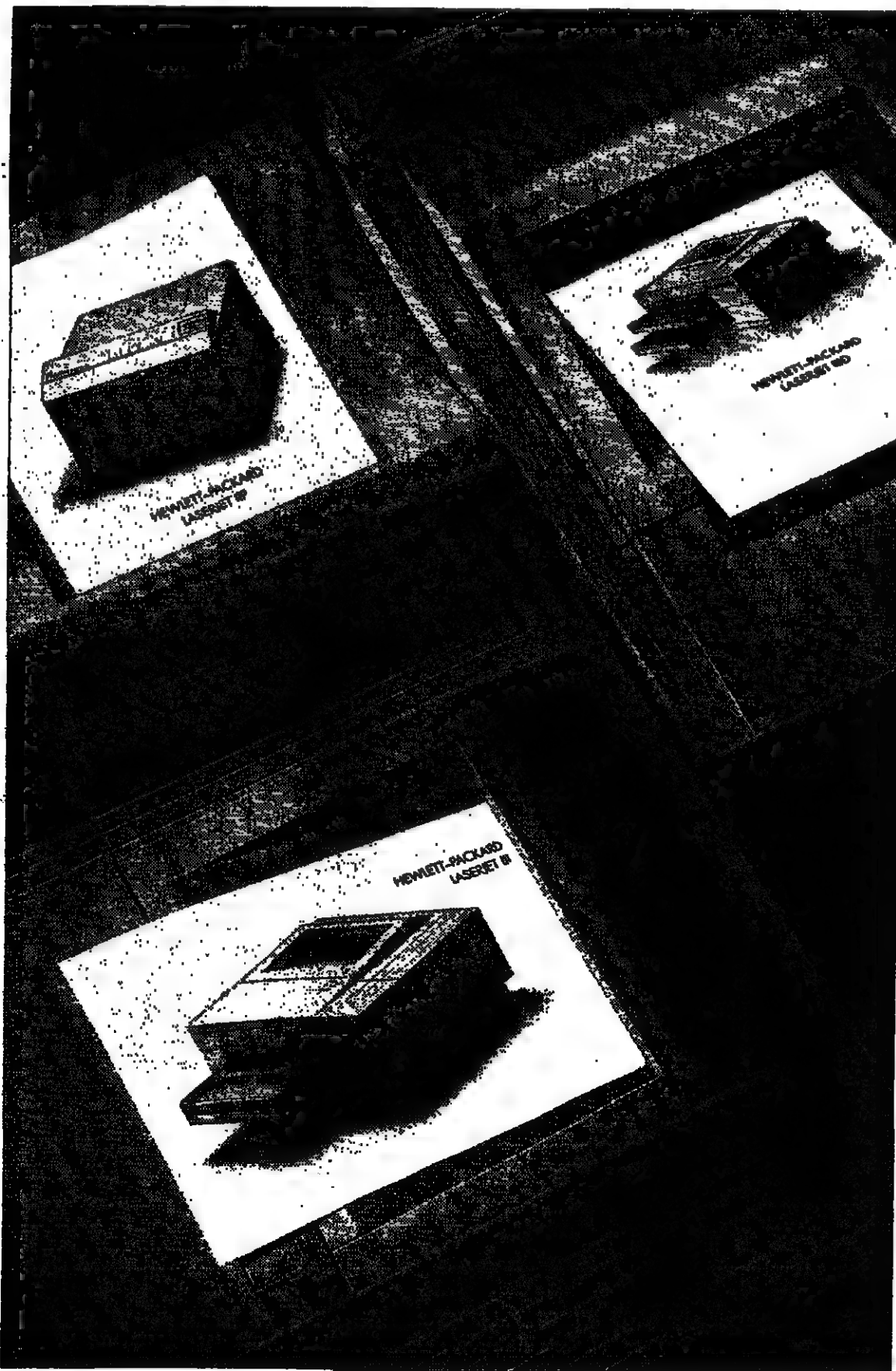
arlier versions which are not copies at all, but have had various colours introduced into them. And full-colour copiers can also copy in black and white.

Other suppliers argue that digital technology must be the way of the future. Editing apart, "Digital copiers are more reliable because they have fewer mechanical parts, and can also be linked to computers or function as fax machines", says Ricoh.

However, the wisdom of turning plain if specialised office machines such as copiers into multi-functional communications devices is debatable. At any rate it seems out of step with the current trend towards walk-up simplicity. Only Ricoh and Konica have black and white digital copiers, Konica's providing three colour as well as black and white.

Meanwhile, as an indication of how things stand with the users end of the copier market, recent research by Marplan commissioned by Toshiba shows that 55 per cent of copier users lease or rent their machines - 85 per cent of these over a period no longer than four years - and that 90 per cent of users appear to be happy with the performance of their copiers and the service they get from suppliers.

There's only one LaserJet.



The Hewlett-Packard guide to quality output.

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THE POSSIBILITY MADE REALITY.

OFFICE SYSTEMS & TECHNOLOGY 4

Facilities management is gaining credibility

Fast growing sector

THERE WAS a time when everybody who worked in the office, from the managing director and high-powered sales force to the person who cleaned the carpets or pushed the tea trolley were employees of that company. Now times are changing.

From the office cleaners to the catering department, more and more offices are hiring outside companies to take care of non-essential parts of their business. Now even the person who looks after the potted plants is working under contract.

But would you employ an outside company to look after your computing services, communications and office equipment needs? As the idea gains credence, a growing number of companies - from banks to retail chains and manufacturers - appear to be answering "yes" to that question. They are employing organisations called facilities management, or FM, companies to run their computers and other high-tech office equipment.

FM is proving so popular in the UK computer sector that it is now the fastest growing sector of the UK computer software and services market, according to International Data Corporation, the European information technology consultancy. The FM market in the UK is around \$320m (220m) about five per cent of UK software and services marketplace, and according to Mr Donald O'Sullivan, market analyst for IDC, the market is likely to continue to grow at an annual rate of 25 per cent for the next two years.

Facilities management first took off in the US, but is now rapidly gaining favour in Europe. Possibly as a result, the fastest take-up in the UK is in companies with "US-style management", reports Mr John Falconer, general manager of Rank Xerox Business Services, a company set up in January this year to offer facilities management services to companies who were wanting to off-load their printing and photocopying needs.

Companies are finding plenty of good reasons to choose the FM route with companies such as the Hoskyns group, Datasolve or Andersen Consulting, rather than go it

alone.

A widget manufacturing company, for example, wants to design, make and sell widgets. It does not want to become a computer installation company and become charged with wiring personal computers into its offices, installing workstations into its design centre and loading inventory control software into the factory mainframe.

More recently the skills shortage in the computing sector has played a part, with companies finding it increasingly difficult to employ suitably-qualified staff.

Instead they're passing the problem on to FM companies. The problem is particularly acute with smaller companies, where the staff may become

Cutting company costs is the biggest advantage of FM

disillusioned with spending too much of their time doing hardware or software maintenance work, rather than developing "state-of-the-art" computer systems.

And because new information technology equipment seems to appear on the market even more frequently than it used to, companies are opting for FM contracts that can reassess the equipment they can drop out of the IT race, and let a contract person keep in touch with them.

Perhaps most importantly, companies are turning to FM because it can save them money.

● To begin with, they are often swapping a fixed cost (of buying new equipment) with a variable cost spread over a period.

● Secondly, they use extra services only when necessary - they do not have the expense of installing the equipment to deal with the peaks. That applies not just to companies with a seasonal market, but to those which need to employ extra staff for a short period - for a host of different reasons.

● And thirdly there are the savings accrued through the economy of scale in which the FM companies deal in both

equipment and staff. They can afford to buy mainframe computers and divide them up so that different parts are used by different clients. They can also employ groups of staff with a specific expertise which a number of clients may need.

One recent trend, according to the Association of Facilities Managers, is the number of companies that are turning to a single company, such as F&O Total Facilities Management, to take care of all the office services. Instead of getting 10 or 20 different bills from a list of different companies, these total FM companies can take care of everything from the catering to the computers and the telephones to the energy management. And they send in one bill.

Facilities management companies are proving particularly popular in the field of energy management, where computer-based controllers monitor heating, ventilation and air conditioning and achieve the desired conditions with the minimum energy input.

Despite the obvious advantages, FM is still an emotive issue. In particular, there are two ideas that companies have to come to terms with before they opt for FM. The first is that the information is too valuable to let outsiders have access to it.

FM companies argue against this by saying that the security employed by most companies is well below that enforced by FM companies. Most FM companies, for example, have at least one data centre designed to withstand a terrorist attack.

And, because there is a contract between the two companies, there are grounds for redress if data is lost or stolen. If a hapless employee accidentally wipes a computer database clean, by contrast, there is little the company can do about it.

The second, and most difficult to argue against, is the belief that information technology is too important to the strategic development of the company to leave it in the hands of outsiders. The FM companies argue that because they employ highly-skilled staff, they are equally capable of doing the job.

Della Bradshaw

Electronic typewriters are still alive and well, writes Julie Harnett

Market holds steady, say suppliers

WHILE THE sceptics are continually writing the final act for the typewriter, you only have to walk into any office, bank, building society, local authority or government department to see that the electronic typewriter is alive and well.

Proof comes from suppliers who claim unit sales, as in the past four years, running at a steady annual 500,000 pa. give or take 10,000.

"The market overall is fairly steady at the moment, but it is holding steady despite the economic conditions," says John Timbony, Marketing Manager of AEG Olympia.

Nevertheless, suppliers agree that there has been considerable change within the market, with purchasers turning away from standard, non-memory typewriters and towards either compact machines that can act as a complement to the personal computer or screen-based typewriters that can also act as a PC and a word processor.

UK industry figures underline the trend towards memory machines. Four years ago, non-memory machines accounted for almost 30 per cent of the typewriter market; today, they account for a mere 5 per cent.

But while in 1986, 12in carriage portables accounted for around 27 per cent of the typewriter market, today they account for almost 60 per cent.

Responding to this, Canon is about to launch two new portables, the Typestar 210 and the ES5, and Sharp has launched the new PA-3140 and PA-3100S. Compacts with 14in carriages, are also becoming popular after a two-year lull, the result of which is increased competition and continued investment by manufacturers such as AEG Olympia, Canon, Brother, Hermes, Olivetti, Panasonic.

It is estimated that sales in the compact/portable ET marketplace will grow between 20 and 40 per cent above 300,000 unit sales level of 1989 during the next 12 months.

Evidence that the typewriter is the perfect bedfellow for a PC can be seen from the fact that AEG Olympia, Brother and Olivetti Office, all of whom are now firmly established in the high-powered PC market, are claiming healthy sales of electronic memory and screen-

based typewriters. Addressing the current market demand for compact typewriters with screen options, AEG Olympia has introduced the Viewtype, a plug-in add-on which can be attached to most of the "I" series of ETs and is said to make the normally onerous task of form-filling much easier with precise infill positions capable of being programmed for re-use.

Another new product, the Comfort WP, is the AEG Olympia answer to the emerging market for compact ET/WP machines at under £700. A PC-compatible model which provides the ability to access ASCII files from a PC (such as MS Word and Word Perfect) and offering two-way integration with other office systems is also to be made available at under £800.

Olivetti Office, too, sees an increasing demand for PC compatibility. Mr Derek Puplett, marketing manager, said: "We will be launching enhancements to the ETV2000 video typewriter series as well as a new model in the very near future."

Mr Puplett nevertheless believes that the new AT-compatible ETV 4000S video publishing system that comes complete with software, adjustable typewriter-style keyboard, silent thermal printer, 14in VGA high resolution monitor and mouse will prove the major success of 1991.

Mr Tony Bradshaw, marketing manager of Hermes, is equally optimistic about his company's version, which is called the SBES90: "Without access to a PC, some secretaries feel they are not keeping abreast of modern office practice. Others are filled with trepidation about being trained to use a computer."

"The new Secretarial Workstations, such as our 80286-compatible ST160 bridge that gap," he said, "and the SBES90 is the logical extension, taking the secretary into the world of document publishing."

Both machines will retail at under £2,800, offering PC/AT, MS DOS and Windows compatibility and will be supplied with 11 applications programs, including a text editor, secretarial database for keeping address records and a document composer for amalgamating

layouts of text and/or graphics on the same page.

The other contender in the secretarial/office publishing market is AEG Olympia, which has launched the Excellence, a modular system expected to appeal to companies needing to upgrade their ETs or dedicated WPs or want to replace old PC ETs with a more cost effective, easier to use solution than a new PC might prove to be.

Based on a modular concept, the Excellence enables users to start with a typeset quality daisy-wheel ET capable of a printing resolution equivalent to 1,100 dots per inch (against the laser print norm of 300dpi), and build up to an integrated office DTP system complete with PC and laser printer if there is a

requirement to produce documents that are able to contain illustrations as well as text.

Added refinements, such as newspaper style column layouts and the ability to wrap text in 6-12pt sizes around pictures using a couple of keystrokes, make it an ideal system for normal typists who have neither the time nor inclination to learn the intricacies of DTP software. The price range is expected to start from under £2,000 for the ET to under £5,000 the complete system.

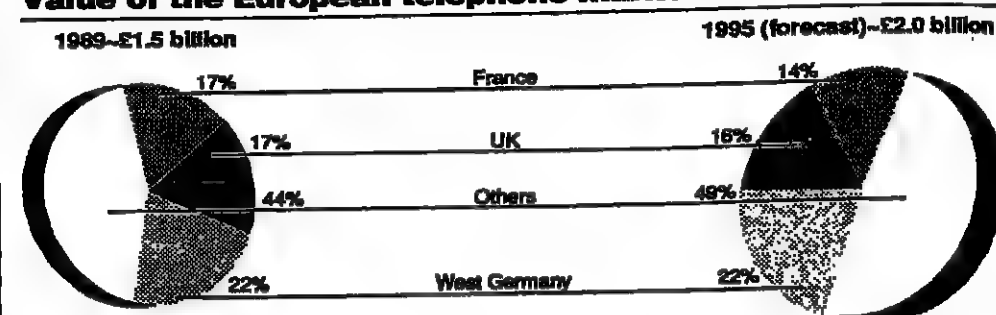
At the other end of the scale, the main trend is towards portable word processors, a market sector currently dominated by Brother, Olivetti and Smith Corona, with Panasonic a

recent contender. Unit sales in 1989 are put at around 30,000 with significant growth forecast for 1990/91, with new entrants expected to include Sharp.

Despite impending competition, Mr Trevor Brooks, Managing Director of Smith Corona UK, believes his new line-up of word processors planned for October launch will enable the company to maintain its lead. "The UK is still behind the rest of the world in the number of typewriters per household. In the US, for example, the ratio is more than 9 out of 10 households. In Germany, it is seven to eight out of 10."

In the UK, it is under five, so there is a huge market out there waiting to be tapped."

Value of the European telephone market



Source: MZA Consultancy Marketing

HOW MANY telephones do you use during the course of a working day? Around the office, in the car and at home, the telephone is an indispensable tool, and one which is only starting to reveal its full potential.

Traditional company telephone networks are evolving into corporate business systems where text, image and voice communications are being integrated on to the one digital network. But the emergence of ISDN - integrated services digital network - in the public telephone network and the advent of cordless telephones in the office will ensure that basic telephony is not left out of technology race.

By the middle of the decade it has been estimated that there will be over 15 million business telephones in Europe - almost 40 per cent more than at present. The UK will have 30 per cent of those and they will nearly all be operated on private networks served by large private branch exchanges (PBXs) or on smaller networks with less than 20 extensions by key systems.

Most of the large corporate telephone networks are fully digital and can support features such as automatic call routing, logging and text-messaging using a range of feature telephones that are now on the market. Use of private digital telephone lines, leased from the public telephone operator, extends the network to company premises in other geographical locations.

For smaller businesses which cannot justify the expense of leased lines the improved quality and features of a digital network end as soon as they enter the public telephone network. But this picture will change over the next two to five years with the introduction of ISDN.

ISDN enables two independent digital channels, each capable of carrying up to 64 thousand bits of information per second, to be transmitted over the existing copper tele-

Digital telephony offers a wide range of services

phone lines that connect business and domestic telephones to the public network.

With ISDN, digital telephony services such as caller identification, user messaging and itemised billing will become available to a much greater number of business users.

Since the introduction of the first commercial ISDN service by France Telecom in 1987, the expansion of ISDN around the world has been slow.

North America leads the way with almost 100,000 basic rate ISDN lines, and follows an aggressive marketing drive by the Regional Bell Operating companies. One of them Southwestern Bell offers its customers a "starter package" which allows them to assess the usefulness of the services for a trial period of 12 months.

In Europe the spread of ISDN services has been even slower due to a lack of the necessary terminals such as ISDN telephones, and high speed Group IV fax. Most telephone operators have introduced trial services but in the absence of an international protocol standard they have all gone their own way.

As a result the terminal market is fragmented and manufacturers are reluctant to launch products until it matures. But the prospects are not very encouraging.

By 1994 western Europe will have 740,000 ISDN connections.



Radio communications mean freedom within the office

TELEPHONES

The cordless system holds key to future

According to Logica's Telematica market research, this would represent only 0.5 per cent of all Europe's telephone lines. It also indicated that the services which business users most eagerly awaited are international ISDN connections, virtual private networking and video-telephony.

International ISDN standards are in the pipeline and with them international connections. In September British Telecom announced that by the end of the year it would be offering ISDN connections to 15 countries, enabling the UK's 2,000 ISDN users to connect to their counterparts in countries such as North America, Japan, France and Germany.

Virtual private networking services, such as Centrex are also becoming available in many parts of the world. This is an alternative to the business PBX, where the public telephone operator offers business users dedicated PBX facilities at its own exchange.

The Centrex concept originated in the US where it accounts for around 25 per cent of all business connections. But there are doubts over the attraction of Centrex in the UK market due to the large number of installed digital PBXs. BT has yet to launch its service and Mercury Communications which has offered Centrex for three years has only 29 customers using 19,000 exchange lines.

There is one new form of business telephony which has no such uncertainty about its future. Cordless communications will almost certainly find its way into all our offices by the middle of the decade. Around 5m digital cordless handsets are expected to be connected to PBXs by 1995. According to a survey carried out by Arthur D Little for the European Commission last year this will create an annual equipment market of £400,000 (£700m).

The freedom to carry your telephone with you as you walk around the office or building is the obvious attraction of the cordless extension.

But likely to be equally important is the cost saving when offices are reorganised and telephone extensions moved. It can cost anything up to £100 to install or relocate a cable PBX system.

With cordless systems a radio base station in the corner of the office could serve up to 100 handsets. But there are still problems to be overcome in the development of the cordless PBX.

An office radio base could serve up to 100 handsets

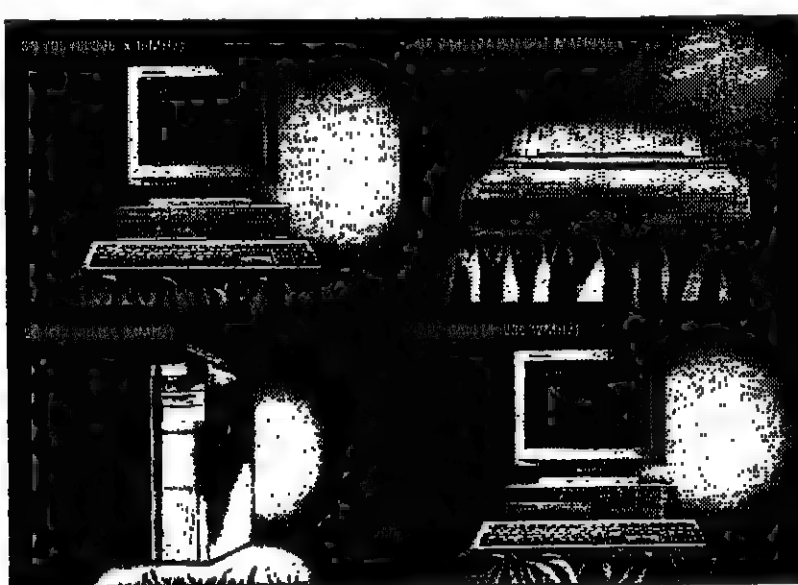
The operation of radio communications within the confined space of an office has yet to be fully demonstrated. Interference between adjacent base stations could reduce call quality, office layout could produce radio "blackspots", and the PBX must be able to identify callers.

Another issue is that different manufacturers have adopted different approaches and this is likely to lead to some uncertainty in the handset market over the next five years. UK companies like GPT and Orbital have developed a digital cordless telephone, the so-called CT-3, while other European manufacturers like Ericsson and Siemens are working on a more sophisticated product the Digital European Cordless telephone (DECT).

It can support a greater number of extensions on a single base station than CT-3 and has been chosen as the preferred European standard. But non-standard cordless PBX products from GPT and Ericsson should be first into the market next year.

There is an inevitability about the introduction of cordless communications and with it the potential to give users complete freedom with a single telephone they can use in the office, in the street or at home.

Richard Wilson



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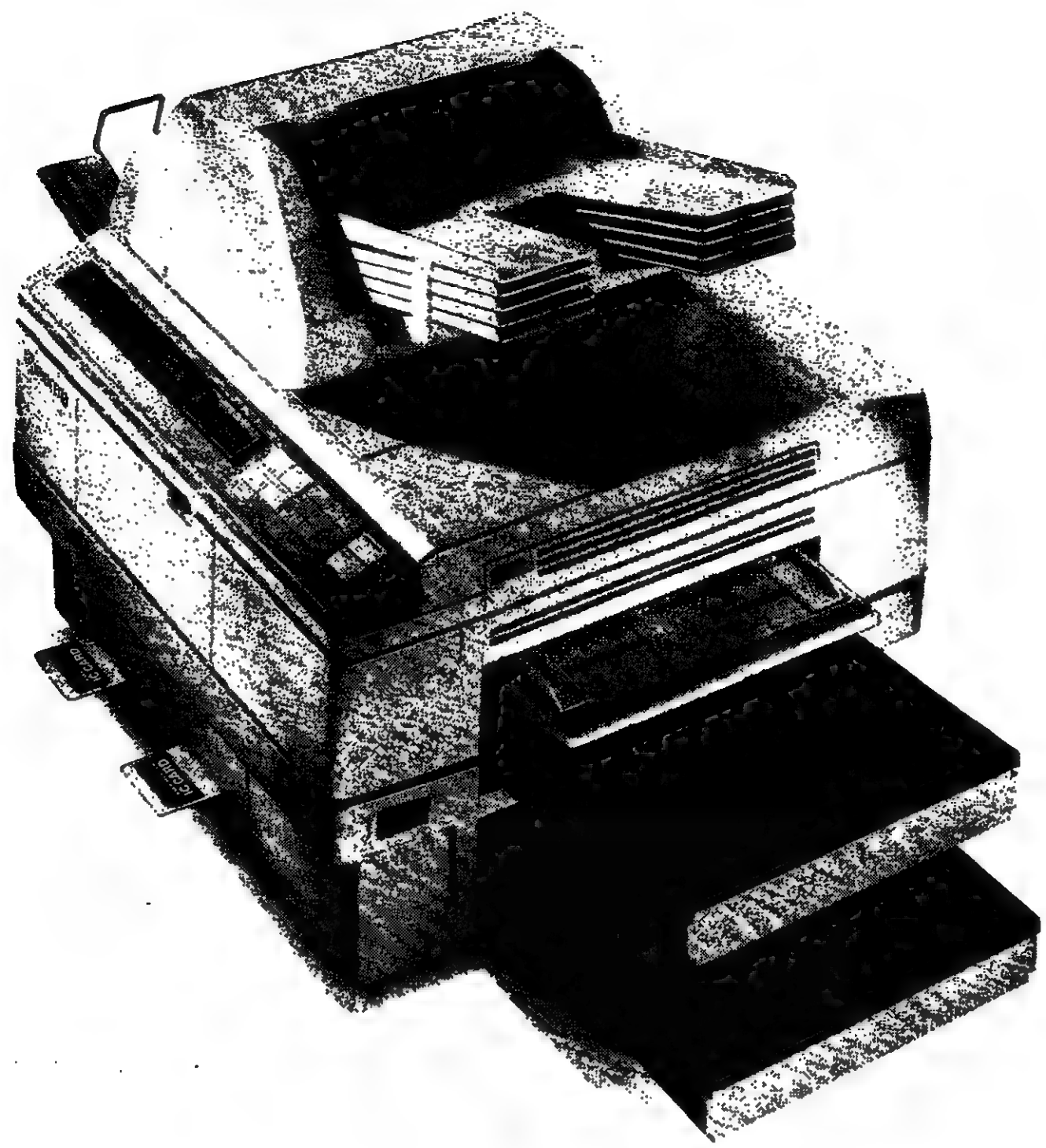
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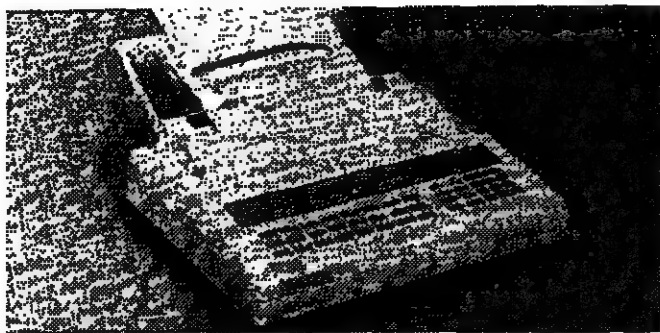
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OFFICE SYSTEMS & TECHNOLOGY 6

FACSIMILE

Fax systems move towards new link-ups



The Faxit Fax 540: a heavy-duty fax system

PREVIOUSLY THE most buoyant fax market in Europe, machine sales in the UK are now showing a slight decline compared with last year, according to industry observers. This can be attributed to three main causes, says market research company Dataquest: the slowdown in the economy, the boost of 1988 shipments due to the postal strike and the relatively high penetration level.

Nevertheless, according to the BFICC (British Facsimile Industry Consultative Committee), UK sales during the first quarter of 1990 were over 6,000 up on the previous quarter, with no less than 52,675 sold. Compared with the first quarter of 1989, however, it represents a 3,000 unit short-fall.

As far as product launches are concerned, Dataquest notes that 1989 was as active in the US as it was in Europe, with 133 new machines appearing on the market and seven new companies entering the growing competition for market share.

Unit sales in the US were put at 1.4m units, with market leaders being Sharp, Murata and Canon. Market leaders in terms of plain paper fax, however, were Canon, Xerox and Ricoh.

According to another UK survey of the fax market conducted by NBES (National Business Equipment Survey), an estimated 75 per cent of all offices had installed at least one fax machine by 1989, with other industry estimates suggesting that the level of penetration has now reached 90 per cent.

Although that is often deemed to be saturation point, as with early estimates of the photocopier market, it is a view that does not take account of increased decentralisation as prices come down and units reduce in dimension become truly desktop size.

Although several vendors promise competition for Amstrad within the next few months, no one has yet matched the FX5900AT which has a gullotine, telephone answering machine, 100-number memory store of fax and phone numbers, Mercury compatibility and built-in parallel interface for linking to a PC. Brother comes closest with the new Fax 325 which features auto paper cutter, 50-number memory and on-hook dialling, with the added bonuses of manual/auto redial and super-photo mode with 33 greyscale for halftone reproduction.

Although there are several

mobile fax machines available, Ricoh claims a lead in terms of size and facilities with the FF-1 which is due for delivery in October and is said to be the only cellular fax to offer CCITT ECFM error correction as well as 12 volt operation.

State-of-the-art features in the mid-range fax segment, said by Dataquest to represent 23.9 per cent of the UK market, include sub-15 second transmission speed, 10-15 page document feeder, 50m or 100m paper roll, up to 140 number memory and, of course, a gullotine.

Increasingly, fax machines at this level offer CCITT ECFM error correction. With prices typically between \$900 and \$1,500, vendors offering new machines include Alcatel, Brother, Facit, Mitsubishi, Panasonic, Sanyo and Sharp.

The need to save operator time and operational costs is leading many companies to replace their fax machines with memory models which support such facilities as pre-timed cheap rate transmissions, multi-location broadcasting and private post boxes.

Memory capacities on new machines range from 128 Kbytes (equivalent to about nine A4 pages) to 2Mbytes (about 180 pages) with prices ranging between \$1,250 and \$2,595. Suppliers hoping for a share of the action at this level include Minolta, Mitsubishi, Swedish Telecom and Toshiba.

Olivetti also entered this seg-

ment with the machine to be made in Italy by Olivetti Sanyo Industriale, the new joint venture company which also includes Matsui but with Olivetti controlling a majority 51 per cent share.

Fax machines are also getting smarter, as the new Remote OMR (optical mark reader) system for use with the Konica 500/550 indicates. Any fax machines, regardless of age, manufacture or features, can be fitted with a Konica OMR and can, in effect, "borrow" the sophisticated features offered by the 550/550, including polling, memory, boxes and so on. "It could really upset the competition," says fax manager, Mr Gerry Tull. "It means that users need only buy OMRs and one of our machines to upgrade their whole fleet of fax units. It will be a much cheaper option than replacing each machine."

One of the main growth areas for 1991 is expected to be the plain paper fax market, with several vendors poised to launch low cost thermal transfer plain paper machines, with Pitney Bowes, Ricoh and possible Sharp, planning to join Canon, Muirhead and Rank Xerox who already offer such machines.

However, sheet-fed plain bond paper fax are likely to prove more popular in the long run, particularly in larger firms with high volumes, not least because paper costs are roughly half those of paper

rolls. In the department of smaller company, the bonus is more likely to be the ability to use the machine as a conventional copier as well as a fax.

Lanier was the first to beat the sheet-fed plain paper price barrier earlier in the year with the 5400, an LED technology machine priced at \$3,415. In the summer, Canon stole a march with the new Fax-1770 which, at \$2,395, is claimed to include a revolutionary image-enhancing technology. Sharp has indicated that it plans to open up the market of plain paper laser fax by the end of the year, with a new machine priced at about \$2,790. It will be the first of three.

Epitomising the continuing trend towards technology convergence is the new 3010 from Rank Xerox. A combined Group 3 laser fax and plain paper copier and one of the most practical of its many advanced fax transmission and image manipulation features is its ability to use the memory for producing ready collated copies of multi-page documents without the need for a sorter.

As digital fax takes over, so integration of fax with other media, including video, will also gather pace, providing users with a whole host of image distribution facilities, including colour.

Sharp will be introducing its colour fax machine to the UK in Spring 1991, as soon as it has received BAST approval. National Sales Manager, Mr John Innes, said: "We have now got transmission times down to three minutes per page, which is quite incredible bearing in mind that the norm for an A4 black and white half tone is about eight minutes."

With the increasing installation of PC networks, another major growth sector in larger companies over the next few years is expected to be in fax gateways and fax servers on the LAN, with the ultimate aim of providing fax send and receive facilities workstation to workstation without the user having to get involved in the technicalities.

Muirhead, the manufacturer responsible for developing the first ever commercial fax machine, is just one company that intends to focus on this area. Having spent two years with its head down and lips sealed, a series of projects will be unveiled by managing director Mr Chris Every this month under the blanket name of "Fax Plus". It promises to herald a new era of fax and office systems connectivity.

Julie Harnett

AS IN most other sectors of the office equipment market, manufacturers of dictation equipment claim that overall sales in the UK are stable rather than in decline, with a steady \$38m annual turnover but with "a vast potential still to be tapped", according to the newly formed voice-processing equipment manufacturers group, which consists of Dictaphone, Grundig, Hill International (Assmann), Lanier, Olympus, Philips, Sanyo, Sony and AEG Olympia.

Taking the different sectors individually, however, there is a slight decline in the sales of desktop machines, but that is countered by the growth in portables, currently accounting for three out of every four unit sales against a two to one ratio five years ago.

It is said that this shift in market emphasis is primarily due to executives becoming more mobile and needing a hand-held unit that can be used as an memory aid as well as a dictation machine.

Minicassette machines, led by those manufactured by Philips, command the largest share of this market, with microcassettes experiencing the greatest growth.

Standard cassette machines are also becoming more popular, again, probably as a result of people becoming more mobile and wanting to listen to a voice recording on a standard hi-fi or car radio cassette.

A recent contender in this sector is Sony, better known for its microcassette machines. Sony has launched the RM16 two-speed standard cassette portable model. Main buyers to date have been those in education and the legal profession, the popularity of it leading to an extension of the range with desktop versions in November.

Philips, however, intends to continue with the minicassette technology it pioneered, as evidenced by the new Pocket Memo 583, a voice-activated unit.

A particularly interesting innovation is the internal battery recharging facility which enables optional nickel cadmium batteries to be recharged some 1,000 times, even while recording is in progress.

It is in the portable market, however, that competition is expected to intensify over the next six months, with prices becoming more competitive, according to Mr Graham Davis, divisional manager dictation at Sanyo. UK prices, he says, are much higher than in some countries and there is considerable room for manoeuvre. "It is not so easy to consolidate

DICTATION SYSTEMS

Portable market set to take off

prices across Europe on desktop units because of the differences in voltage in the UK."

Sanyo also aims to increase its market share by targeting first-time users with the launch of a bottom of the range, commercially-built standard cassette machine at a consumer price. A new range of minicassette machines towards the end of the year, is also hinted at.

Proving still further that there is considerable potential in the desktop dictation market, Sanyo is also planning to launch a new concept in dictation using digital techniques for better voice reproduction quality.

Noise X, the dictation system's equivalent of Dolby, cuts out a lot of background noise; a noise purify switch will keep voice pitch at the correct level even if the recording is speeded up or slowed down; and, on the recording side, Smart Vox will ensure that only voices are picked up, not extraneous noises such as bells ringing, drawers shutting or printers clattering.

Prices are expected to be pitched at around the £300-£350 mark.

Sanyo is working on a portable version. David Snook, sales manager, dictating at Sony believes the future for portables could lie in digital audio tape (DAT), a technology design for the consumer market. Sony has developed smaller versions of the DAT tape for business use and has already shown 10-15 minute DAT recorders in Japan.

Full computer-based digital dictation is expected to be the way ahead in the long term and most manufacturers are working towards this.

One of the main benefits is that it brings greater reliability because there are no moving parts, but it also provides other productivity features such as instant access to any part of a recording and the ability to edit dictation.

Although Grundig uses its

proprietary Stenocassette in conventional tape systems, Mr Richard Hargrave, managing director, is very excited about the development of the DDP (Digital Dictation Processor) 2000 which uses standard PC hard disk. "In four to five years digital systems will be commonplace," he said.

DDP is already being used on a trial basis on a network within two well-known concerns. "The advantage of digital systems is that, once the dictation or voice message is stored on a PC, it can be routed through the network to local or remote PCs for someone to listen to or for someone to transcribe. All the user has to do is press the right buttons, the system does the rest," said Mr Hargrave.

Grundig's main competition comes from Lanier with the Voicewriter and Dictaphone with the Digital Express. After a slow start, Mr Paul Jennings, director of Marketing Services International Dictaphone, says that large multinationals are showing great interest, not least because the integration of both dictation and voice mail in one system is more cost effective and easier to manage.

Dictaphone believes that the new, more powerful 7000 model, which boasts up to 80 hours of recording capacity and enables up to 32 people to access the system simultaneously, will appeal to a much wider range of companies wanting an integrated centralised system that can be accessed by anyone from any telephone extension in the world.

Philips looks set to become the next manufacturer to launch a PC-based digital system. Sales and marketing manager Mr Roger Holmes says that a system is currently going through approval procedures. "The first model arrived in September and is now with BAST. It will be released in the US first; UK second. Due for launch in 1991, it is a range that starts with a four-port sys-

tem going up to a 32-port system."

It could be some time before we see the first all-digital hand-held, however, although the Psion MC 400 laptop computer has the potential to offer a voice recording facility that in addition to fax.

But Mr Hargrave admits that the next logical step is a dedicated portable recorder. "The memory capacity is there, but not the battery technology; yet. We are quite a long way down the line, though," he said.

The UK distributor of Assmann equipment, Hill International, believes digital technology is more useful at the secretarial workstation than in the executive's briefcase. They introduced the CAT (computer aided transcriber) which combines desktop transcription, with on-screen information, and word processing.

Mr Ron Dodson, sales manager at Hill International, says that all the interest in voice mail via the PABX and the shortcomings that many potential buyers are experiencing is actually leading to a surge in sales of the Assmann MTMS "local" store and forward voice messaging and dictation system that has been on the market for some time. "We find that users want a tried and tested system; and that is what we can offer". The same applies to Harford, with its telephone transmission system.

But the suppliers have their work cut out on the marketing front, it seems. According to a survey conducted by NBES (the National Business Equipment Survey), only 7 per cent of potential purchasers are aware of multi-user systems, with only 1 per cent of companies with such a system already installed.

Those that were aware of the benefits felt that the ability to transcribe and dictate simultaneously was the most important attribute, followed by the ability to access the system from any phone, be it in the office or in the car. Access to a centralised message system came fourth on the list of features.

The attitude towards dictation, however, could well take on a new significance in the years ahead as the workforce becomes more mobile, which the forecasters are all predicting. Chances are that, as fax has become an essential option in the text communications market, so dictation will be deemed essential in the document and voice processing markets.

Julie Harnett

Our technology is the first to reach its most important target.

You.



Information technology leapt ahead during the 1980's. Many companies are now committed to the most advanced technology. One of these is Olivetti.

The difference is that Olivetti intends to be the first when it comes to bringing the advantages of this technology directly to the end user. Take, for example, the CP436; using the new

Intel 486 microprocessor, Olivetti has created the first Computing Platform, a systems platform forming the basis for many different applications - from high-powered PCs to network servers to departmental computers. Or take Olivetti's intelligent use of technology: this has made possible the PCS, personal computers available at consumer product prices, yet with all the power and computing capability you'd expect from a fully professional PC.

Thanks to the ETV 4000S, desktop publishing is now

adays available to any secretary who wants to craft together texts and pictures on her own typewriter: another example of Olivetti technology applied in the office. Your bank lets you carry out all counter operations 24 hours a day, 7 days a week? Once again, it's because of an approach to technology which is truly Olivetti-style.

For the four operating Companies in the Olivetti Group - Olivetti Office, Olivetti Systems & Networks, Olivetti Information Services, and Olivetti Technologies Group - every

product and every IT application, from faxes to printers, from photocopiers to word processors to computer systems and networks to any other IT application has been developed, right from its conception, design and construction, with the requirements of the end user in mind. Olivetti believes that this is what technology is for: to be totally available to the user. To you. To all of you.



Our force is your energy

olivetti

OFFICE SYSTEMS & TECHNOLOGY 7

HEALTH AND SAFETY

EC laws to combat risks in the office

THE ELECTRONIC office is a minefield of health hazards. Upper limb disorder, back ache, cramp, headaches and fatigue are just some of the complaints that are common in the modern electronic office. Among the causes of such problems are badly designed workstations, toxic emissions from office systems such as printers, bad lighting and glare from VDU screens.

From December 31 1992, however, all member states of the European Community will have to enforce laws that control the working environment and make employers responsible for the safety and health of their employees during their time in the office.

Part of this so-called framework directive on the work-place includes a directive on the minimum safety and health requirements for work with display equipment.

Applying to the total workstation, including display screens, keyboards and accessories such as telephones, printers, document holders and work surfaces, the directive places certain obligations on employers. One of these is to analyse the workstation and evaluate the risks to workers, such as repetitive strain injury (RSI), eyesight deterioration and mental stress.

Employers will also have to keep themselves informed of the latest advances in technology and scientific findings concerning workstation design so that they can adapt their office to improve conditions and protect employees from health and safety hazards.

Employees must be given information on all aspects of

mean added expenses for employers, numerous case histories already exist which show badly designed workstations and bad working habits can result in personal injuries that can become permanent disabilities. This can be extremely costly to companies because of the resulting absenteeism, lower productivity, temporary staffing, medical costs, consultancy and, increasingly, litigation.

It is not only employers that are responsible for alleviating the potential hazards. Manufacturers also have a role to play. Some like IBM, are now supplying flicker-free display screens with low radiation emissions, but where these are on offer, the sales literature rarely stresses such availability or explains fully what is meant by such terms as "flicker-free".

Perhaps it will take implementation of the EC directive to galvanise people into action. In Sweden, it became law in 1988 to incorporate anti-radiation magnetic shields in VDUs.

"Every screen that we supply, therefore, is designed so that it does not emit radiation nor magnetic fields," says Mr UM Bergendoff, of office systems manufacturer Facit. "Nobody asks for it in the UK yet, but it will come."

Like Facit and a few other manufacturers, Philips has launched a radiation-free flat, LCD screen but demand is not high.

Seating manufacturers would appear to be having more success than most in encouraging employers to opt for safer products. Martin Stoll, the German seating manufacturer, has even won an annual order for 5,000 ergonomically designed chairs from the European Commission. The Active Pelvic Support chairs are said to relieve the muscles from strain and tension by holding the pelvis in a natural state of rest and the spinal column in an upright position.

In London, the long list of customers has just been joined by Cable & Wireless. UK agent Mark Palmer said: "While most of the attention is on RSI, no company should forget that millions of man hours are lost through cramp and back ache caused by inappropriate, badly designed seating."

In the main, however, safety concerns appear to be the prerogative of suppliers of add-ons. Sinteron Electronics, for example, has just won the distribution rights to the US-manufactured NoRad Shield for VDUs which, it is claimed, eliminates glare, reflection and static while blocking 99.99 per cent of the electro magnetic field.

The emission of ozone from laser printers was highlighted recently at a special forum hosted by a company called Inocel. While printer manufacturers may be sceptical about a company that is supplying a specially designed ozone filter called the Mini, Mr Steen Christensen, head of the company, says he has plenty of evidence produced by the Danish

institute of Technology which proves that built-in filters rapidly lose their effectiveness.

Manufacturers, he says, should not turn their backs on the problem and employers should not put their employees at risk, particularly when it comes to compliance with COSHH (Control of Substances Hazardous to Health Regulations, 1988) guidelines.

Few companies have followed the example of copier and laser printer manufacturer Océ and made a point of producing products that are as safe from the start as it is possible to be. The company's new 2400 high volume walk-up office copier, for example, does not use technology that emits toxic ammonia fumes but uses zinc oxide coatings as a primary photoconducting element.

Similarly, it is designed to ensure minimal noise levels and low power consumption, with safe disposable materials and low ozone emission levels.

Julia Harwell

The role of the manufacturer is vital in the field health and safety

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Julia Harwell

• A health and safety conference on "Danger in the Office" is to be held in London on November 27 in London, chaired by Dr John Cullen of the Health and Safety Commission. It will cover aspects such as the legal framework as it now stands in relation to health and safety, the EC directives, occupational health hazards such as RSI and Legionnaires disease and security and fire safety.

Tel: 081 680 5632 for further details

THE OFFICE ENVIRONMENT

Buildings of the future will be 'intelligent'

IN RESPONSE to growing demand, a high level one-day conference is to be held on October 9 1990 to address the issue of "Buildings and their Environmental Impact". Arranged jointly between the Building Research Establishment (BRE) and the Chartered Institute of Building Services Engineers (CIBSE), it will examine the effects of greenhouse gases, cooling towers and air quality in buildings.

Of particular interest in the context of office technology will be the presentation of a new report on BREEAM, the BRE Environmental Assessment Method for new office design. Developed in collaboration with the ECD Partnership, sponsored by property developers Stanhope Properties, Olympia & York and Greycoat with J Sainsbury, it has a number of objectives among which are:

- To recognise buildings which are friendly to the global environment
- To improve the environmental quality of offices and maintain the health of its occupants
- To raise awareness of the dominant role the use of energy in buildings plays in global warming
- To provide a common set of targets and standards so that false claims of environmental friendliness are avoided
- To encourage designers to create environmentally sensitive buildings.

The report contains is meant to be used as a basis for consultations about future developments.

The role of the property developer is an important one.

Environmental friendliness and energy efficiency should be considered before the drawing board stage, not long after the topping out ceremony as is too often the case.

It is not cheap to develop "intelligent" buildings that are flexible enough to cope with the demands of modern offices with their plethora of electronic office systems.

An extra 30 to 50 per cent on top of standard building costs is usually what is required. But the costs are justifiable if the results are greater energy conservation, a healthier environment and long-term operational cost savings.

Nevertheless the cost of running office buildings is high especially - according to a recent report produced by The Anderlyn Consultancy - office buildings designed in the 1960s and 70s which were often poorly insulated and over-glazed.

The report, entitled "Scope '90", shows that it costs £795 per sq ft to run a building which is 10 to five years old, £13.30 for one which is between

six and 20 years old and £16.22 to run one which is between 21 and 50 years old.

Conversely, a building over 50 years old only costs £7.33 per sq ft, no doubt reflecting the fact that they have few if any services to cost.

The elements included in the costings were building management, energy, repairs and maintenance, maintenance of plants, cleaning, security, insurance, water rates and service charges.

The breakdown region by region shows that running costs per sq ft are £13.51 in Central London and £11.23 in the Home Counties against an average of £8.46 in the rest of England.

These figures represent a significant 30 per cent increase over 1989, with general repairs and maintenance, building management and energy being the main contributors.

Another set of figures shows that the running costs of air conditioned offices (£12.16 per sq ft) are nearly double those of non-air conditioned offices (£6.46).



Office running costs are up 30 per cent over 1989

While Mr Roger Henderson, chairman of The Anderlyn Consultancy, was amused by the notion that the figures suggest that a return to Dickensian conditions might not be such a bad idea, the section on Ventilation Rate and Smoking in the BREEAM report notes that "there is evidence that naturally ventilated buildings have a reduced incidence of the sick building syndrome compared with mechanically ventilated or air conditioned buildings".

It is not understood why this should be so and research is now taking place to seek an explanation. There is every reason to believe that environmental problems are simply a case of too much molly-coddling.

Be that as it may, according to the Department of Energy, the application of energy efficient policies to buildings could reduce this country's £40 billion fuel bill by 20 per cent, that is £8bn a year.

Heating, water and lighting in buildings, accounting for a staggering £17 billion per year,

could be reduced by 30 per cent.

A booklet entitled "Energy Efficiency in Office Buildings" produced by the Energy Efficiency Office, after a number of cases where actual cost savings have accrued as a result of installing new energy efficient systems.

Provincial Insurance invested £7,520 on a heat recovery system operated by electronic and sensor controls. Annual savings amounted to £4,600, representing a payback of just 1.7 years.

The booklet explains how to assess building energy performance with reference to the NPI (Nationalised Performance Indicator) and suggests measures of saving energy in office buildings. These range from switching off unnecessary lights, draught-proofing doors and windows and fitting timer controls to heating and ventilation systems through to installing a full-scale building management control system.

One of the problems about addressing waste is that it is difficult to know where to

start. Ideally, every company should carry out an energy audit just as they would a financial audit. Not only would that focus management and staff attention on what is an increasing area of concern, but it would help people to understand the way energy is expended so that waste can be identified and avoided.

The Energy Efficiency Office has published a booklet which explains how to carry out an energy audit programme.

There have been many developments in the field of energy management systems and a list of some of the leading manufacturers, contractors and consultants can be obtained from Gloucester-based ESTA (Energy Systems Trade Association).

Typical of their members is Emstar - part of Shell UK - which provides much needed technical, financial and management expertise, including analysing energy requirements and specifying practical solutions for organisations wanting to become more energy efficient.

"Nowadays it isn't just a case of turning down the heating or making sure the roof is insulated," says Mr Mike Briggs of Emstar.

Computers can now provide sensitive monitoring of plants and equipment and can be linked to internal systems such as alarms to provide a complete computerised picture of the building. In this way security can be provided at the same time as efficiency.

Julia Harwell

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SHARP

FOR PEOPLE WHO MEAN BUSINESS

OFFICE SYSTEMS & TECHNOLOGY 8

Lighting is source of company headaches, finds Bernard Barbuk

Employers seek solution

BECAUSE IT comes with the building, of all the factors contributing to the efficiency of offices, lighting has always been the one most taken for granted, receiving no more than sufficient attention for its maintenance.

Nor did company accountants lose sleep over it. A typical company lays out no more than 0.5 per cent of its operating overheads on its office lighting, compared with 84 per cent on salaries. But things have moved on in the past year or two, with the belated acceptance that, where people work with VDUs, poor lighting produces high error rates, dissatisfied staff and eye problems — all of which will cost employers money in efficiency, recruitment and training and, increasingly likely, successful compensation claims.

The most obvious result has been a general reduction in office lighting levels. Where 750 lux was the norm (as far as anyone ever bothered to measure it) in traditional clerical offices, the ideal today in offices where VDUs are used is about half that.

Good lighting is hard to achieve with VDUs. Low-level light sources themselves are easily bleached out by more powerful lights — and at all times tend to reflect sources of brightness — windows and lighting luminaires.

Part of the problem is that at any time in any normal office some of the staff will not be using their VDUs, and will be doing work which requires more light than is ideal with VDUs, while others (people over the age of 40, for example) may need more light all the time. And to make planning really difficult, modern office layouts are subject to continual change: it often happens that within three months of an office plan being completed not one person is sitting in their

tings as part of general energy management.

The benefits of such systems are debatable. Personal control of the individual's immediate working environment is now accepted as a good thing. But there is nothing especially personal about activating the lights by telephone in a system



With the increasing use of VDUs, especially in the financial sector, correct use of lighting is crucial to prevent glare and reflections from the screens

that is also likely to turn them off by itself when the sun comes out. And what is far more important than how the lights are activated is the quality of those lights when they are in use.

The conventional way to light offices well is to set an acceptable overall light level and then calculate the number of ceiling fluorescent luminaires necessary to achieve it. These luminaires are best recessed within a suspended ceiling, and modern designs are lowered so that the light is directed straight down to eliminate horizontal glare and minimise the chances of lights making uncomfortable contrasts behind VDUs.

Ceiling/ambient lighting provides once-and-for-all planning

and cable management and, if a low ambient level — say 300 lux — is supplemented by good task lighting, flexibility and personal control can also be achieved. The main disadvantages are that, however notwith-standing, it is virtually impossible to prevent at least some luminaires reflecting in some

of the range of contract cleaners and requires the skills of trained in-house staff or specialist firms. If they are not cleaned regularly, the output of fluorescent lights can decline 40 per cent over a period of two to three years. Uplighting using free-standing uplighters — attempted to provide a solution. But its popularity has proved limited (it commands a mere 5 per cent of an office lighting market of £200-£250m), largely it is often seen as an unnecessary addition to an office already equipped with ceiling lights. Good uplighting needs ceilings between 2.4m and 3.3m high and free-standing uplighters can not only present a wire mess but are also likely to be in the way.

Although the technique of reflecting light back down from the ceiling, diffusing and softening it on the way, theoretically produces glare-free yet reasonably spread light, all too often the result is vividly contrasting bright spots on the ceiling. And most manufacturers produce free-standing uplighters of 1.8m high, which means that any reasonably tall person can look straight into the light source, and is dazzled as a result.

Uplighting using sodium or metal halide lamps, however, can provide economical, controllable and certainly the most glare-free and flexible form of office lighting available, with the advantage that if the company relocates, the lighting can go with it.

Uplighting is best handled when it is incorporated within systems furniture, since not only is it then out of the way and easily cable-managed, but the VDUs can be sited in the less brightly lit areas furthest from the uplighters, while other work can be done where light levels are higher.

Some systems furniture suppliers have uplighters based on fluorescent fittings. This is popular in Scandinavia, Germany and France — where office lighting is treated with greater sophistication — but requires mixed schemes in which it is combined with task lights and more conventional uplighters.

Many systems furniture suppliers have task lighting options — seldom taken up by UK buyers. The preferred light source is almost always fluorescent or compact fluorescent lamps.

Uplighting has not proved a popular solution to the problems

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CABLING

The structured approach

YARDS OF spaghetti-like cabling hanging from the ceilings and from the underside of office desks is all too common a sight these days.

The problem is that office buildings constructed in the late 1970s, cannot cope with late 1980s technology: the ubiquitous computers, printers, photocopiers, telephones and fax machines.

The rapid changes in office equipment, and the increase in its use, is forcing companies to consider a whole gamut of questions when dealing with modern technology.

As well as asking how many Megabits, Megabytes and Megadolls a piece of electronic equipment has, there is the need to question the more mundane. Where will it plug in, how much wiring will it need and where is the nearest phone socket? All point to the need for good cable management.

The essence of good cable management is to install the wiring when the building is under construction or during refurbishment, says Mr Kevin Carter, of Enator, the Stock-borough-headquartered information technology consultancy.

"Wiring a building up for IT should be just like wiring it up for power," says Carter. But, he adds, most developers still do not install computer and phone wiring before putting new buildings on the market.

The obvious drawback for companies installing structured wiring systems during an office refurbishment is the cost. Wiring a complete building with computer cabling can double the cost of a refurbishment, but Mr Carter says that many can be recovered in two to three years, and in some cases as little as one year.

That is because once a cabling system is installed there is little cost incurred when people move around the office. If the carpet and the floorboards have to be taken up or wiring draped and tacked round the skirting boards, then it can cost between £300 and £400 to move one office worker to another desk. Given that 50 per cent of office workers, on average, move desks every year, the costs soon accrue.

With a structured cabling system the only cost is the labour needed to pick up the equipment, move it and plug it in elsewhere.

Despite the costs involved in planning office cabling Mr

Carter believes that over the past two to three years the increased flexibility of structured cabling has persuaded many companies to go down this route. "Structured cabling has now become the norm as opposed to the ad hoc approach."

For those planning to install

Unshielded twisted pair is almost identical to the slim copper cabling used for phone wiring. When installed between computer systems and peripherals two pairs of wires are usually installed.

The simplicity of this approach to cabling has surprised many companies, but as

at a rate of 4 Megabits per second using the token ring networking software or at 10 Mbit/s using Ethernet transmission techniques. AT&T and Northern Telecom have recently announced that they have developed a way of operating a token ring network over twisted pair at 16 Mbit/s, and further developments continue.

Two Silicon Valley companies have developed a way of transferring a networking protocol devised for fibre networks — the fibre distributed data interface FDDI — on to unshielded twisted pair cabling, which increases the capacity even further. Development for the enormous bandwidth of optical fibres, the FDDI system transmits data at 100 Mbit/s.

The drawback at the moment is that the speed can only be maintained over a relatively short distance — about 50m. By comparison a normal cable run, between a computer, say, and a printer, is about 50m.

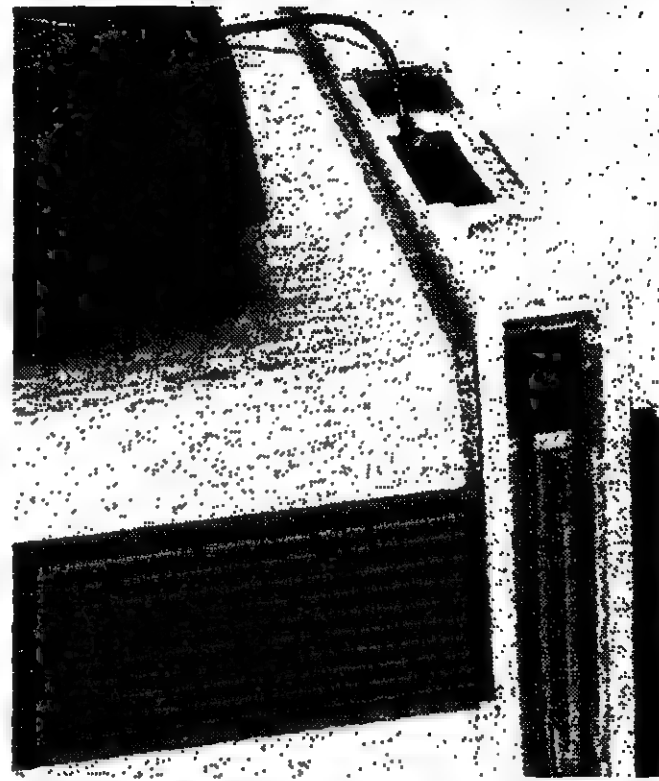
The ability of unshielded twisted pair cabling to carry such large amounts of data is likely to eliminate the use for optical fibres between different pieces of equipment in the office. As Peter Bacon, head of the building technology group at IT consultants Butler Cox says, "Usually people just don't need that kind of bandwidth. It is only needed in small localised areas."

However, fibre is still finding favour in some areas, in particular for installation in the vertical cable risers, which carry the cables between floors within a building. It is also now widely used to link buildings together. Because of its huge capacity it is cheaper to install and takes up less space in these applications.

Perhaps of greater threat to copper cabling will be radio signals, where data is sent

between computers and peripherals across the airwaves. Local area network systems which use infra red signals instead of cables are already on the market.

Della Bradshaw



K & N's King Alpha desk provides separate channels for mains power, telephone lines and data cables. Plastic covers can be removed when access is required

structured cabling systems, the choice of which type of cable to use has become increasingly clear over the past year.

Instead of the thick copper coaxial cable that used to connect the PC to the mainframe

"Wiring a building up for IT should be just like wiring it up for power"

and the mainframe to the printer, unshielded twisted pair has emerged as the clear winner in the cabling race. Proprietary wiring systems for individual PCs or word processors are now not even considered by most companies.

Mr Carter says: "Really it's stunningly obvious. It's a very easy decision to make."

The proponents of this type of cabling, such as AT&T in the US, have won out in the marketplace against IBM, which proposed instead a shielded twisted pair system where the cabling is protected from electro-magnetic emissions from electrical and electronic equipment.

The success of the unshielded cabling rests on its low costs — at around 15p a metre, it is less than half the cost of an equivalent quantity of coaxial cable — and the speed with which the capacity of the cabling has been increased.

Today's unshielded shielded pair cables can transmit data

Office layouts are constantly changing making planning difficult

original position.

These problems, combined with the increasing use of the late 1980s, has led to a spate of interest in so-called "intelligent" or "controlled" lighting systems, perhaps with air-handling fluorescent fit-

Lynton McLain charts new developments

Lifts with brains descend on market

Mr Tetsuichi Usugi, the general manager of Mitsubishi Electric UK quotes the case of one of its lifts installed in the Hotel Tour Albert Premier, in Paris. This is so smooth, he says, that one franc coins placed on the floor remained upright on the floor throughout a journey up and down the

A subtle change of approach has come from the Japanese

15 floors of the hotel. The smoothness of the lift in Paris has its origins in the demands of Japanese customers for "the highest quality smoothness in their lifts."

He attributes the smooth performance to the use of electronic controls, microprocessors with precise and stable digital control and the precisely aligned guide rails, which he says are essential for smooth operation.

Otis Elevator, part of the US United Technologies group, traditionally has sought effi-

ciency in its lifts, which is reflected in speed. This has been the main criteria of the company's lift design, but it is beginning to address the question of lift ride quality and comfort, combined with speed.

This subtle change of approach has come from the Japanese lift manufacturers who have been making inroads in Europe, for example in Germany, where they have traditionally been dominated by US elevator manufacturers such as Otis.

Otis has some ingenious technical solutions to help it produce lifts and elevators that are fast and smooth. The latest idea is to suspend a lift cage independently inside a frame to insulate the car and passengers from the external vibrations that are almost unavoidable from the movement of the passenger car up and down the guide rails.

Mr Karl Krapek, the president of Otis said at the launch of the company's "Intelligent" lift, the Elevonic 411, in Cannes, in France, that the independently suspended lift would be on the market this year giving the company a lead with a lift that has "the perfect

ride" with US speeds.

The traditional differences between Japanese and US preferences in lift performance and approach to technology are evident in figures for passenger preferences found in a survey by Otis Japanese passengers, apparently, are prepared to wait for up to a minute for a

Computer technology has entered the field of lift operation

lift to arrive, preferring their comfort to the saving of a small amount of time. US passengers, few on the other hand, according to Otis, are unhappy about waiting any more than 25 seconds for a lift to arrive.

The advances that could make lift operation more efficient and cut waiting time have been available for about five or more years, but they have only been applied quite recently. This technology centres around computer power and most recently, artificial intelligence. Japan is installing

lifts with this technology. Artificial intelligence is at the heart of the lifts Mitsubishi started to test on an experimental basis last year.

Otis has been marketing its Elevonic 411 lifts, with their artificial intelligence directed dispatching, for about a year. The lifts are able to learn patterns of use and traffic at individual floors in a high rise building and for particular times of the day.

The effect is to make the operation of the lifts more efficient, with less waiting for staff. The memory of the computer which controls the lift collects and stores data on the density of passenger demand. The longer the lift is installed, the more precise and reliable the information becomes for a particular time of the day.

The computer predicts future patterns of demand continuously. This is possible because of the data held on the memory of the computer, which is a precise guide to historic patterns of demand. The longer an historic pattern of demand has been established, the more likely it is that the pattern will be repeated in future.

This makes it possible for a lift to arrive precisely at the ground floor lobby area at, for example, 8.30 each morning apart from Friday, when past experience has shown the computer, that the heaviest demand comes at 9.00am. On Friday, the lift would be available at the ground floor at 9.00am.

The microprocessor on the Otis Elevonic 411 lift is able to allocate lifts to give the most efficient response to customer demand. This applies to which-

Automatic transfer of documents

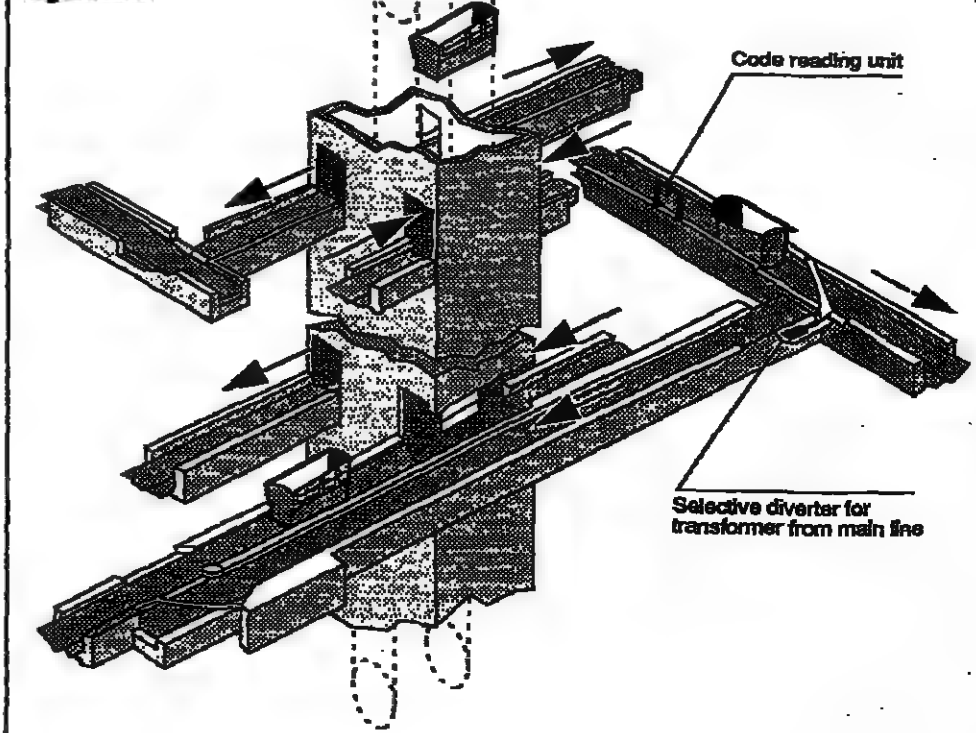
LARGE VOLUMES of documentation can be automatically moved around a building or complex. Sovex Marshall has introduced a transit box system which uses containers which incorporate a destination coding mechanism.

The boxes, which each hold up to 25kg of material, can be used for items such as documents, punched cards, tapes, microfiche, computer records. The boxes are handled continuously by moving lifts which, at certain installations, operate in conjunction with linked conveyor belts to provide horizontal as well as vertical movement of the boxes.

The boxes and their contents are automatically discharged at pre-selected points a few minutes after they have been fed into the system.

Code slider indicators on the side of the boxes act as their interface with an electronic control system. As the box travels through the system, the destination code signal is interrogated at the approach to each discharge point, and the box discharged only at the location indicated.

Document handling system



A microprocessor is able to respond efficiently to customer demand

over floor the historic pattern of demand indicates requires a lift at a particular time of day. Whenever the demand from passengers changes, the microprocessor is able to learn the new pattern and modify its pattern of operations.

Other, even more dramatic changes in lift and elevator technology are in prospect. Otis has sold a lift to a Japanese customer through its subsidiary company Nippon Otis, which uses linear induction motor technology to propel the lift. Magnetic levitation is also being considered, along with streamlined designs to cut the noise of rushing air as the lift speeds on its way.

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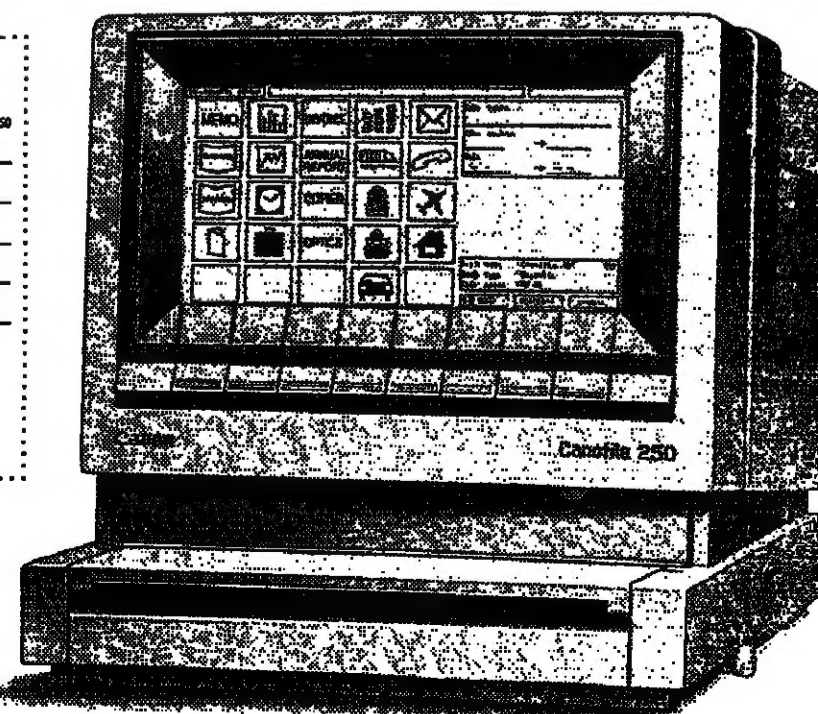
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OFFICE SYSTEMS & TECHNOLOGY 10

With office equipment rising in value, Laura Blair finds companies stepping up on access control

Electronics heralds multi-functional security

MODERN OFFICES with their increasing number of computers and other expensive business machines, are sitting targets for break-ins and vandalism. Also, information is now often the most valuable thing a company has on its premises, let alone the fact that the Data Protection Act puts the onus on the company to protect its data.

Where this kind of security is concerned, the old system of combination of locks is singularly ineffective, and extensive manned security disagreeable and expensive.

Hence the emergence of electronic access control systems which do more than control who goes in and out of the front door, and can secure specific doors and sensitive areas without burning a hole in the corporate pocket.

They may also add an extra thrill of modernity to a company's image of itself. Suppliers suggest that electronic access control is popular with computer companies not only because they have more to protect, but also because they like to use, and be seen to use, the latest on the technology front.

Not least of the attractions of electronic access control is that the latest systems go beyond their traditional deterrent role. Networked to other building services, be it the air

conditioning, water supply, or even the personnel management system, they can help to monitor the gamut of these services.

"There is rarely one single reason for installing access control. And with recent technological advances it is becoming more about managing people - controlling and

Access systems can now provide a range of services as well as security

monitoring movement - than simply preventing unauthorised entry," says sales manager Mr John Coltart, of White Group security company.

In any case, the electronic access control market, which is estimated at \$50m in the UK, is the fastest growing sector of the security market with an annual growth rate of 20 per cent.

This is now a technology led market, according to the industry. The very first electronic access control systems introduced some 20 years ago used

encrypted cards, issued to bona-fide users, in conjunction with card readers placed at strategic entrances. Most of the systems that are currently in

operation still do.

But there the similarity stops. Today's readers may include sophisticated chips and software which, in conjunction with PIN numbers entered by the card holder, will grant or deny access according to complex parameters.

Also, early readers were either "stand-alone" boxes able to read only a limited number of cards, or dumb terminals linked to a controlling box: if this box went down, so did the entire system.

Now distributed systems have emerged using intelligent readers which are often linked to a computer that is situated either in a control room on the premises, or in a remote control station linked by a telephone network.

This set up enables the security system to do additional clever tricks, such as monitoring movement throughout an organisation, single card entry to selected areas (such as the car park), the recording of flexible working and the buying of snacks from automatic vending machines.

However, because the readers have sufficient local intelligence, the integrity of the core security is not impaired if something goes wrong at the computer end.

Doubling up access control security is also no longer a

tour de force: CCTV cameras can now transmit pictures by phone to a remote control station to check who is using the system.

Card technology itself has progressed and there is a comforting choice of different cards for different security levels. Magnetic stripe cards resembling credit cards are the cheapest, but also the least secure as they can be easily copied using an off-the-shelf encoder. Magnetic-dot cards with the encoded material encased between plastic sheets are more difficult to forge.

But the most secure are Wand-cards, which have an encoded stripe of polarised wires claimed to be impossible to duplicate.

Alternatively, and dispensing with the nuisance of inserting a card into a reader, which causes a fair amount of wear and tear on both, there are proximity-cards or tokens,

which can be sensed by a reader at some distance, via electrical induction or radio signalling. Carried on a key-ring or wallet they also provide hands-free operation.

Smart cards are also credit card look-alikes but use memory chips to store large amounts of data, and can therefore be used ubiquitously for access control as much as credit/debit cards, to store

information such as medical records.

They have been a great success in France, but less so over in Britain. Whether this is because the UK lies somewhat behind Europe on high-tech security or for more elusive cultural reasons, remains a moot point.

There is little doubting, how-

Proximity-cards can be sensed from a distance by radio signals

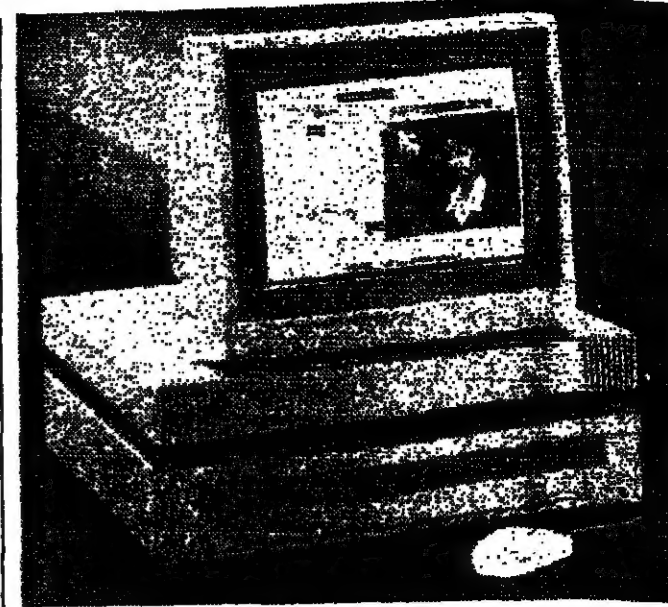
ever, that the avant-garde biometric systems have not taken off, not only because of their exorbitant cost but because people dislike them. Biometrics use a "reader" scanner to recognise unique physical traits such as fingerprints, palm prints, eye retinal patterns and voice patterns, to then decide whether to grant or deny access.

"Doubtless such systems will find use, but only in a small number of high security applications. People don't mind voice recognition but worry about having their eyes scanned and find fingerprint scanning quite offensive," said sales marketing director David Young, of Group 4 security

company. Which is a reminder that electronic access control does not feed on technology alone. If people dislike the system, or are not properly trained to use it, the system will fail. The limitations of non-tech access control systems which use passes and passwords that could be lost or stolen, have not been completely overcome by the advent of high-tech.

Revealing an unexpected wisdom, access control suppliers are now beginning to promote their user training as an integral part of their security packages. They are also promoting the idea that the trend towards integrating access control as an element in premises management is the way of the future. The systems can then be incorporated into the building at the design stage, rather than as an afterthought, as at present.

Finally, it is not easy to steer through a huge number of manufacturers of hardware, dealers and installers who may also be manufacturers plus the flock of independent consultants. For all the mixture, however, the top hardware manufacturers are mostly US companies, and the contingent of UK manufacturers/installers includes among its top names Group 4, White Group, Card Key, Chubb and Thorn.



The Digital Audio and Video Interactive Device (David): incorporating digital video and digital stereo audio capacity, 40MB hard disk, VGA screen, laser disc player, mouse and keyboard, David takes videodisc capability almost to its limits.

MULTIMEDIA

Confusion surrounds new products

MULTIMEDIA IS rapidly becoming one of the hypewords of the 1990s personal computer industry. But the deluge of claims and promises about multimedia, coupled with publicity about a standards battle between rival systems, is generating confusion among potential users.

Even the meaning of multimedia is unclear. Defined broadly, the term encompasses any combination of sound and pictures on a machine, including video games. But many people restrict its use to more sophisticated manipulation of audio, video, text and data on a personal computer.

However it is defined, multimedia is set for rapid growth, analysts say. A market forecast by the Information Workstation Group of Alexandria, Virginia, estimates that worldwide sales of multimedia products and services will grow from \$6.4bn (£3.4bn) in 1990 to \$24.1bn in 1994.

The most important vehicle for delivering multimedia in the 1990s will be the compact disc. Philips of the Netherlands and Sony of Japan launched CD-Rom (compact disc read-only memory) in 1985 as a standard medium for distributing information to personal computer users.

Most CD-Roms released so far contain a mixture of text and static graphics or pictures. Many are specialised databases aimed at professional and commercial markets - CD versions of on-line computer databases. A disc holding a valuable database, such as a comprehensive directory of companies in a particular sector, is likely to sell for several thousand pounds.

The storage capacity of a CD is 600 megabytes, equivalent to 1,500 floppy discs or 250,000 pages of printed text. That sounds impressive but it is quickly overwhelmed by the immense volume of data required to encode digital video. A single CD can hold only about three minutes of full-motion pictures.

Video is therefore the main technical obstacle in the way of multimedia. In recent years the electronics industry has made progress towards overcoming it through "compression" technology.

Increasingly complicated

The most important vehicle will be the compact disc.

algorithms (mathematical processes) are being used to squeeze redundant or surplus information out of video signals, so that they can be transmitted or stored in the smallest possible space without unacceptable loss of picture quality. Both intra-frame coding, which reduces the information content within a single picture, and inter-frame coding, which squeezes out surplus data from one frame to the next, are used.

The two best publicised compression techniques come from Intel of the US, which is developing a multimedia system called DVI (Digital Video Interactive), and Philips of the Netherlands, which is developing CD-I (Compact Disc Interactive).

At the moment DVI and CD-I are completely incompatible, although both companies say they will make their systems comply with standards for video compression and multimedia that are now being drawn up under the auspices of the International Standards Organisation. Even then, however, they are likely to be incompatible in practice, because the computers that run them will use different operating systems.

DVI and CD-I have different

emphases. Philips sees CD-I primarily as a consumer product to be run on a dedicated CD-I machine - a new combination of home computer, video and audio player which is scheduled for launch in the US and Japan in 1991 and Europe in 1992. Many other leading consumer electronics companies, including Sony, Matsushita and Pioneer of Japan, are supporting CD-I.

Intel, on the other hand, is aiming DVI more at the business market. Unlike CD-I, which specifies the hardware, operating system and storage media, DVI is a set of chips designed eventually to turn any personal computer into a multimedia workstation.

Despite the differences between DVI and CD-I and the eagerness of Intel and Philips to discourage journalists from writing about a great battle for multimedia supremacy between the two systems, there is in fact a lot of overlap between their potential markets. Philips is developing a wide range of business and professional applications for CD-I ahead of its consumer

Video is the main technical obstacle to multimedia

launch, while Intel is talking about making home DVI systems in collaboration with the consumer electronics industry.

And there are other contenders in the great multimedia battle. Apple, the independent-minded US computer company, is devoting huge resources to its own multimedia strategy based on the Macintosh PC. Commodore of the US plans to launch CDTV, the first mass-market multimedia system, at the beginning of 1991. This is primarily a consumer product aimed at pre-empting CD-I but, like Philips, Commodore sees business users as an important sideline.

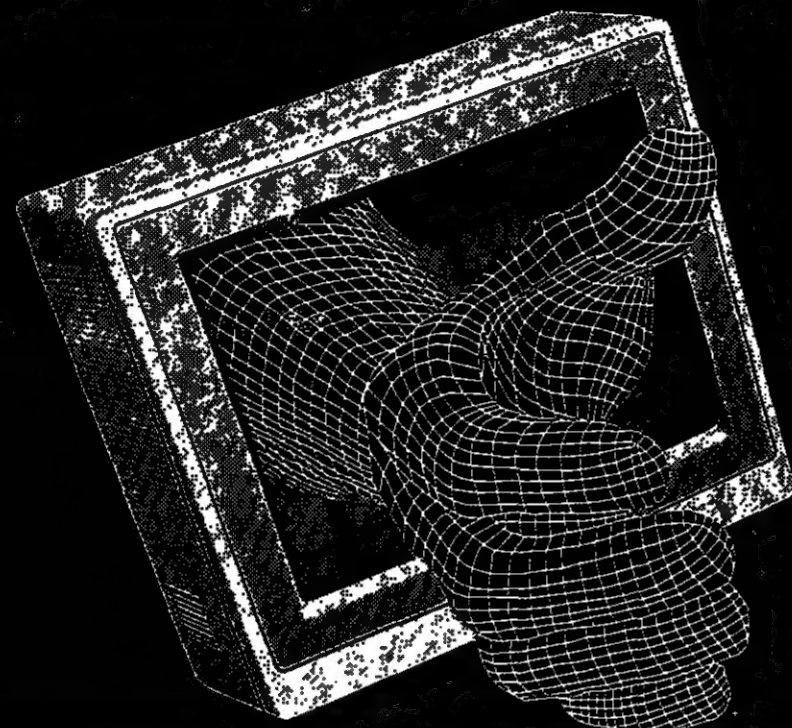
None of the multimedia systems announced so far can play full-screen full-motion digital video off a CD with a quality that matches the live videotape or videodisc. DVI comes closest; its compression system can squeeze 72 minutes of full-screen video on to a CD, but the quality suffers if there is a lot of rapid movement. However, digital multimedia systems can offer good quality video on a "window" covering less than half the screen, because that requires less data to give an acceptable movie.

For commercial applications of interactive video that need high quality moving pictures, such as some training courses and point-of-sale information systems, there is no alternative to using analogue videodiscs such as the Philips Laserdiscs. Because these do not store pictures as digital data suitable for manipulation by computer, there is a limit to how truly "interactive" they can be.

The Digital Audio and Video Interactive Device (David) released last month by MV Multimedia, a subsidiary of Microvitec of the UK, pushes the capability of the videodisc virtually to the limit possible. The company believes that its video quality will not be overtaken by a purely digital CD-based system for at least 18 months.

Another important ingredient of multimedia in the office will be videoconferencing. The workstation of the late 1990s will enable an executive to mix any combination of graphics, sound, text and financial analysis on the screen - and to take part in a videoconference without leaving his or her desk.

Clive Cookson



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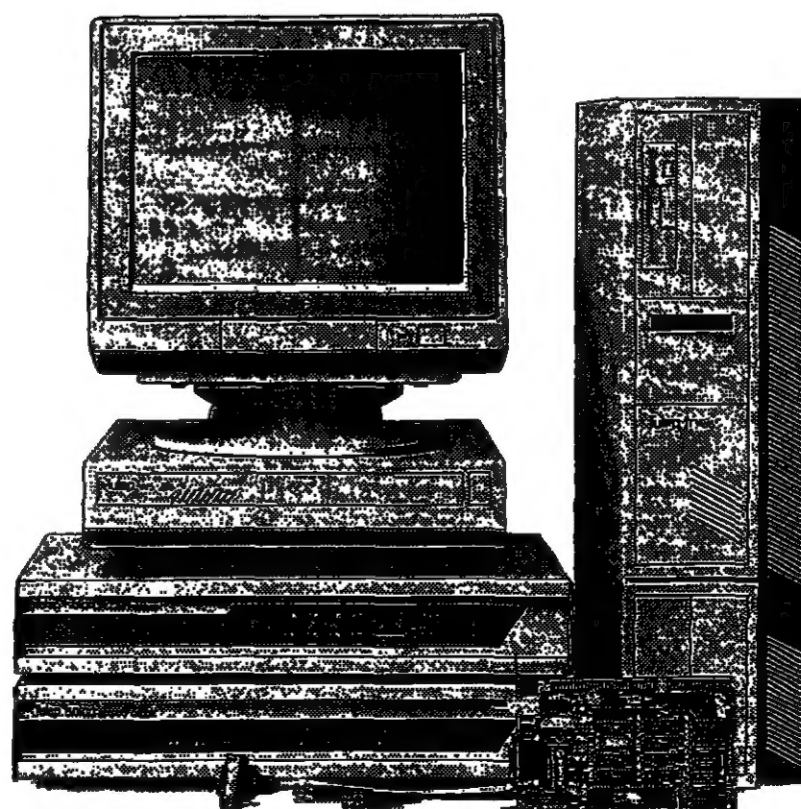
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OFFICE SYSTEMS & TECHNOLOGY 11

The influx of technology is shaping design

Furniture follows changing demands

GIVEN THE inroads which technology has made in the workplace over the past decade, putting demands on both users and the environment, it is today considered extremely shortsighted to purchase even the most basic office desks and chairs without taking into account technological needs.

Despite the advent of fibre optics which tidy away unsightly wiring under the floor, there is still the matter of vast lengths of computer, telecom, fax and printer cabling to be managed in an orderly and safe fashion.

Cables are not only ugly, they can also be a danger when staff find themselves manually sidestepping them whilst balancing cups of coffee and reading computer print-outs.

And although the technology itself is shrinking, the square footage devoted to it on the desk top is growing. Environmental psychologist Mr David Tong of Building Use Studies explains: "People are working with their own personal com-

puters, fax machines and printers. Therefore they will need an area to input and then a secondary area to discuss and dissect that information.

"Modern office work is becoming far more collaborative and desks will often need a tier drop and for the frequent 'instant meeting'.

"Technology in the office, says Mr Tong, is 'space hungry' - so although modern office furniture may turn out to swallow up more expensive space, it may also offer a superior system of linkage for more efficient grouping or perhaps tiered storage for more effective use of height space."

More than half of Britain's larger companies are estimated to move 50 per cent of their staff within their office each year. Due to the soaring cost of office rentals, relocation and/or decentralisation is also on the increase. Jones Lang Wootton predicts a 10,000 job exodus from central London alone during 1990.

Whether you move within an office or from one office to

another, the furniture must be moved and reconfigured too. Nowadays much play is made by many furniture manufacturers on the ease of relocating their products.

Mr Greg Wong, whose company Progress International moves and installs other people's furniture, has witnessed many a company manager's nightmare - cheap furniture disintegrating during the sales department's annual reshuffle. "I advise my customers that by and large they will get what they pay for," he says.

However, other factors apart from the demands of technology and the troubles of British firms are motivating the once cautious office manager to invest more thoughtfully in certain elements in the office. By no means the least of these elements is the staff. A combination of demographic, cultural and environmental trends has seen 'people values' gaining ground in the 1990s. Individuals are now conscious of their lifestyles and organisations are aware of the



Lucas's self-contained conference room integrates furniture systems with information technology

need for a corporate image.

Office design and furniture is no longer a matter of fashionable aesthetics dictated by designers' whims. Much press publicity has been given to awards granted to staff crippled with Repetitive Strain Injuries. The old model of self-entitled management - workplace theorist Frederick Taylor's notion of the white collar worker as a unit of productivity - has become obsolete. Office staff are now generally better educated, more articulate and more aware of their rights.

Meanwhile, employers faced with a skills shortage caused by demographic changes now appreciate that people are a valuable asset and that investment in their training should not be wasted.

Mr Doug Hamilton of interior design consultancy Wolff Olins Hamilton believes that

workers now view a decent office environment as an essential rather than a perk. "The furniture you use expresses a corporate message," he explains. "It tells you how the company treats the staff and that same image also mirrors professionalism to suppliers and customers alike."

Accurate figures on the size of the British office market are notoriously difficult to pin down. But according to two more recent reports, the 1990 market value is put between £280m and £320m for systems furniture; the total office furniture market is estimated to be £550m.

Taken on a European scale, 41.8m of the 98.7m people employed in the European Community work in offices. There are an estimated 60m workstations in the EC. That adds up to a lot of furniture and seating - and the figure is

expected to rise further to 70m by the year 2000.

Faced with such a vast market potential, the major international players in the office furniture market have been on the acquisition trail. American furniture manufacturer Westinghouse, for instance, has recently taken over Knoll, Shaw-Walker and Reff - so doubling its size in an expanding global market. Rival multinational office giant Steelcase Strafor has meanwhile purchased established British company Gordon Russell and the US company Hayworth has snapped up Comforfo.

The top end of the office furniture systems market is now being consolidated in the hands of the mighty few. But will this necessarily mean profitability in Britain at least as many furniture companies have been quite severely bruised by the current recession.

Black Arrow Group pretax profits fell from £4.6m to £3.75m for the year to March, and Allan Cooper pretax profits for the first half of this year were also down by 28 per cent.

British office furniture manufacturers have a tough fight on their hands in defending their domestic market and making inroads into European ones. A new EC directive on visual display units is set to become mandatory in the UK on December 31 1992 and is likely to play a make-or-buy role in future developments.

This directive gives minimum design requirements for office desks, chairs, workspaces and lighting for use with VDUs. Its technical scope will influence every aspect of office furniture design. Most UK-based manufacturers are confident that their furniture will meet the anticipated standard proposed when the UK

Health and Safety Executive issues appropriate regulations to comply with the directive.

Several, among them Project and Jensen, have already held seminars in a bid to explain the full implications of the directive to their customers. But worries persist that the UK design community is largely ignorant of the changes ahead.

Within a couple of years it will not be only the enlightened few companies who employ ergonomists and buy flexible furniture. All employers will be held responsible for the health and safety of their workforce - and that means choosing and providing office furniture tailored to technological needs, with the mechanisms, moveability, non-reflective surfaces and dimensions to meet the Euro-legislation being mooted.

Wendy Smith

ERGONOMICS

Chair design focus for heated debate

ALL AGREE. The working chair is the most important piece of ergonomic furniture - of ergonomics generally - in the office. People with aching backs and necks are not efficient, and ergonomically correct chairs promote good posture.

What is debated, however, is what form the design of such a chair should take to make an important contribution to efficiency office work.

Medical evidence shows that working seated for long periods of time puts harmful stresses on the body. Yet over half the working population spend their working lives sitting down in offices, and increasingly amount of this time is spent in front of a VDU.

Chairs can help prevent the muscular strains that arise from this kind of work by offering height adjustment, support for the back and the ability to be able to swivel and move laterally to adjust the angle of back support the sitter prefers.

But the role of a chair over and above these functions causes fierce disagreement among ergonomists and chair designers. Firm lumbar support, automatic synchronised mechanisms which respond to the sitter's movements without levers and buttons, chairs that tilt forward so that the spine keeps the correct S-shaped position, are all backed by strong arguments. Even the EC has joined in the fray.

The £400m European chair industry (£116 in the UK) has recently been shaken the EC

directive on the minimum health and safety requirements for work with VDUs. The directive will come into force in the national law of all member states by the end of 1992, and may make many ergonomic chair designs illegal.

Not only does it specify that chairs used for working at VDUs should allow the operator easy freedom of movement and a comfortable position, but it specifies that chairs must have height-adjustable seats and 'rest backs also adjustable in height and tilt'.

This looks set to upset many in the office chair industry for although most modern office chairs have height adjustable seats and tiltable backs, height adjustable backs are rare.

Yet, it would even seem, to take the directive literally, that many old-fashioned typist chairs with backrests that slide crudely up and down a bent pole would be approved, while recent masterpieces of chair design would not.

In fact chairs with separate height adjustable backs are now deemed somewhat out of date. Clerk's chairs needed height adjustable backrests because their backrests were usually very small. But modern chairs have longer, S-shaped backrests which provide lumbar support without the need for height adjustment.

In recent years conventional working chairs have been largely superceded by 'dynamic' chairs in which seat and back angles, created by mechanically articulated

two-piece shells, adjust in synchronised movements.

Dynamic chairs are claimed to give perfect support to the whole body even when the sitter is in movement, not just when sitting still. So many argue the directive has been based on an outmoded ergonomic principle, ignoring the design and engineering advances of the past 10 years.

As a result intensive lobbying by the industry and international standards organisations is aiming to get the EC chair specification amended.

The directive, however, is no longer up for discussion, having been approved by the EC Council on 29 May 1990.

Whether those lobbying (including the German, French, British and American chair industries, directly or through their industry associations) failed to do so at draft stage - or whether the EC simply turned a blind eye to their efforts - is not clear. But what seems now to be happening is a concerted campaign to include in the chair specification an additional commentary (amounting to de facto modification) which will explicitly mention different types of chair design.

The way out being suggested turns on the directive's vague requirement that VDU chairs should provide 'easy freedom of movement and a comfortable position'. The current ergonomic consensus is that this, including more specifically proper back support, can be achieved by more than one type of chair design.

The directive, the lobbyists argue, should reflect these views. The conflict will at least have served to concentrate everybody's minds on the realities of EC law.

Politics apart, the consensus is that today's state of the art working chair - with gaslift adjustment, lockable/tilt floating reclining facility, synchronised seat and back - is characterised by movement and fastidious adjustment.

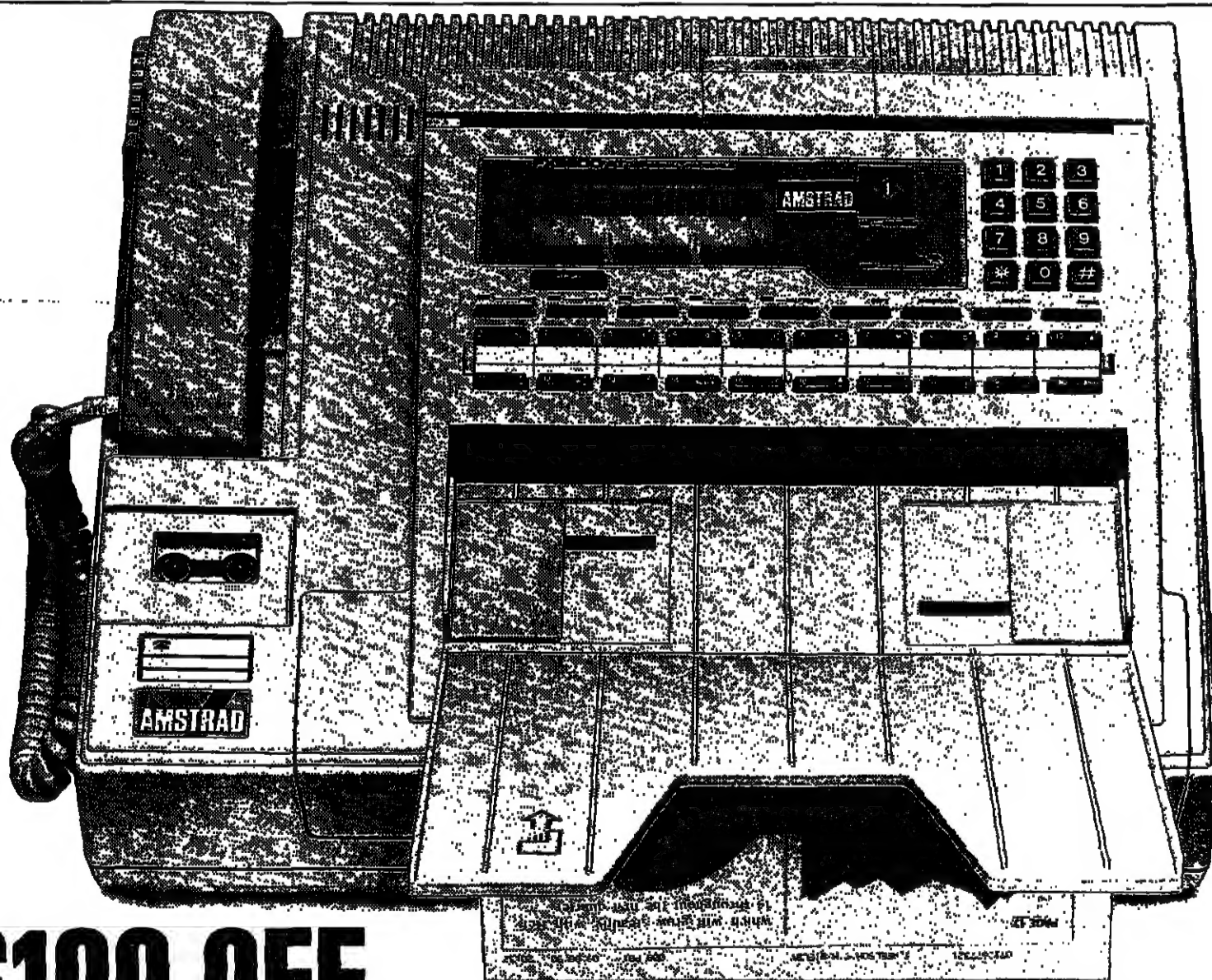
This is rapidly becoming the norm in the office. Even executive chairs are now designed as efficient working chairs rather than status symbols. Some suppliers market the same synchronised chair throughout the office echelons, changing only the quality of the finish (such as leather as opposed to fabric) to signal the user's status.

The rest of the world may well be catching up with democratic Scandinavia where oversized and uncomfortable executive seating was never popular. However, the trend towards one-chair for all probably reflects less of a democratisation of the office environment, than the fact that executives all too frequently work in front of VDUs and suppliers increasingly need to rationalise their ranges.

Manufacturers are facing increasingly costly costs which can only be offset by volume and international sales. Chair-making, it is said, must make the transition from craft to mass production, robots and all. And a likely scenario is that the present rich diversity of models and suppliers will be whittled down to a few key manufacturers.

Currently the industry heavyweights include international names like Steelcase Strafor and Herman Miller; the UK's Project and Vero.

Laura Blair



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OFFICE SYSTEMS & TECHNOLOGY 12

EVERY DAY of every working week, companies in Britain are either physically on the move or plotting their escape from escalating rents in congested city centres to the leafier, cheaper suburbs or brand new out-of-town business parks on green field sites.

Relocating anywhere is guaranteed to be expensive: the Confederation of British Industry recently calculated that it could cost an average of £10,000 per employee to organise a satisfactory move.

It also involves complex and convoluted planning, excessive man hours and more than a pinch of human misery. And yet companies still do it frequently.

The reasons why they embark on this awesome task is highlighted in a report by property consultants Debenham Tewson Research, "The Shifting Face of Office Decentralisation".

During the 1980s, says the report, companies were attracted to the idea of decentralisation because they needed new types of space to meet the requirements of

changing working practices, less inflationary accommodation costs, and more pleasant working environments as a contrast to the chaos of urban congestion.

Advances in technology, increased the mobility of corporate activities and encouraged a split between executive headquarters in central London and back office functions such as accounting and computing which could be relocated to less expensive areas.

As yet, there is no sign of a slowdown in relocation, but according to the same report there will be a marked change in the reasons for moving in the 1990s.

Recruitment difficulties in London due to changing demographics will play a key role - the London Chamber of Commerce and Industry's quarterly survey indicates that 50-60 per cent of all service companies are already finding the right staff hard to find.

Meanwhile, the desire for a better working environment will see companies moving further afield than before.

The person charged with the

Constantly being on the move is proving an expensive business

Preparing for change

responsibility for organising the move of both technological and human resources varies according to the type and size of organisation. It could be the facilities manager, office manager, financial director or, in a smaller firm, the managing director.

If the burden appears too heavy or the logistics look to be too complex, any of these people can call on a number of expert consultants for help. The number of commercial relocation service companies presently listed with the Association of Relocation Agents is 30.

Management consultants such as the Fulcrum Group and Relocation Management Associates will also undertake the task.

However, moving computers and ancillary equipment from

one office to another will invariably be sectioned off into a completely different project file. Should the computer be a mainframe from a reputable supplier and under a maintenance contract, then the relocating company will probably be obliged for insurance reasons to allow the supplier to handle the move.

Digital, for instance, offers a service called DECmove which is available for equipment under warranty or a maintenance agreement. This takes care of the de-installation, move or re-installation.

But word processors and simple plug-in personal computers do not warrant such expertise. They can simply be unplugged and blanket-wrapped for moving, as can fax machines.

"Life gets a little more com-

plicated when it comes to a photocopier", explains Ms Philippa Vernon-Powell of The Office Relocation Company. "Firstly, you have to ask the photocopier supplier if you can move it. Some insist on moving their own and that can cost anything from £100 to £250, but a 'nice' company won't charge."

The procedure is similar with telex machines. Despite the overwhelming popularity of the fax, many financial institutions which trade with Third World countries are still using telexes.

In the UK, British Telecom has around 80 per cent of the telex market and because of the outdated wiring system they won't let you move it yourself", explains Ms Vernon-Powell.

For organisations that are

not tied into a maintenance contract with a computer supplier, there is always the independent route. A number of removal firms claim to specialise in moving technology around the country.

Bishop's Move London, which has been involved in a number of computer moves for the Midland Bank using air ride suspension vehicles, sees the handling of technology as a growing part of its business because client companies are becoming more highly computerised.

Supposing that your people and equipment survive the move, the new office that awaits them has to be properly planned to minimise disruption and maximise productivity both in the short and the long term.

According to Mr Peter Ulla-

thorne of designers and architects McColl, companies should have looked closely at their space requirements before choosing the building - "if they have to move they should know the growth and contraction projected over a five year period", he says.

Over the past 20 years, office space planning has seen cellular offices and open plan deployed in a variety of different "landscaping" configurations. Now, due to changing work patterns, the advent of home working and flexible hours, that previous mix is being challenged by a different approach to spatial planning.

McColl's Ullathorne highlights key international examples. The Scandinavian Airlines office in Oslo favours the combi-office. All the staff from the managing director to the typists have their own cellular office clustered in groups around an open space. IBM in Tokyo has unallocated spaces for its salesmen who check in to a computer which in turn directs them to an open desk space.

Space planning will no lon-

ger be a case of calculating a foot print for the workstation and then multiplying it by the number of staff to be accommodated in the office. It will be governed by a different set of parameters. Dr Frank Duffy of architects and space planners DEGW explains: "Companies should be bearing in mind that users will be performing different types of work; they will be more concerned about the environment, and the emphasis will be on interaction of space rather than on deflection of status."

On the practical level, experience has shown that you cannot standardise space. Office planning has become a sophisticated mix of art, science and psychology, but computers can still put a high-tech spanner in the works. Ms Joan Abrey-Jones of Organised Office Designs says: "The IT manager doesn't know enough about space planning and the space planner certainly doesn't know enough about technology. It has got to be a collusion of experts."

Wendy Smith

New frontiers in flexibility

Continued from Page 1

It will also increase the demand for power and better air conditioning in buildings, as a personal computer with a colour screen requires up to three times as much electrical power as a monochrome terminal, and discharges more heat.

As more of a company's vital records are computerised there will be a growing fear of power failure and the need to provide back-up power in case of mains power failure.

The increasing emergence of digital equipment in the office will change the way equipment is distributed around the building, with a move away from the central photocopying or printing room, to more equipment at the desktop.

Digital photocopiers, which swap the complicated analogue lens system for a digital scanner, will blur the distinction between the photocopier, fax machine and computer printer. Rank Xerox, for example, has a digital photocopier for sale which is also a plain paper fax machine. The company is planning to incorporate a printer in this type of unit as well.

"When I look at my secretary now she has a laser and a fax machine on her desk and there is a photocopier in the



Computer back-up systems are becoming vital

corner of the room," says Mr Greg Melgaard, deputy chairman of Gestetner, one of Europe's largest independent distributors of office equipment. "I can see all those being incorporated into one piece of equipment."

Being digital, the equipment can be connected to a computer local area network. That would mean that the unit could be used for scanning documents into a PC. Once on the computer screen, the information could be manipulated, and

then printed out or sent as a fax from the printer/fax unit.

The introduction of such hybrid machines will mean the smaller business, as well as large corporate ones, will be able to take advantage of the most up-to-date office technology, with all the implications that has for office design. Other gadgets designed to aid the smaller business include cheaper fax machines and switches which enable a company to use a single phone line for both voice and fax calls.

The introduction of the combined fax, copier and printer will mean an increased emphasis on the document rather than the data. One simple example of this trend is the way in which the fax machine has ousted telex as a way of sending textual information, says Mr David Millican, a marketing manager at Rank Xerox.

Mr Millican points out that while companies spend about two per cent of turnover on IT, they spend between six and 10 per cent on documentation - management reports, equipment instructions or audit reports, for example.

As scanners enable employees to store whole documents electronically, for easy retrieval, manipulation and dispatch - by fax or post - there will be a need for more powerful storage media.

The obvious candidate is the optical disc, which can store huge amounts of archive data, but needs to be considered in the planning of any office technology.

The challenge for companies now, argue equipment manufacturers, is to accept the need for office technology, and develop an overall strategy to make it work for them.

Della Bradshaw



IN COMPUTER technology, left, in the dealing room of Leeds Permanent, Britain's fifth-biggest building society. Leeds, the home city of two building societies, is seeking to attract more companies away from the south of England to its fast-developing financial services centre. The city seeks to displace Manchester as the commercial capital of northern England. Advances in telecommunications have increased the mobility of corporate activities and encouraged a split between executive headquarters in central London and back-office functions, such as accounting and computing, which could be relocated to less expensive areas. An improved quality of life, plus savings on accommodation and salaries are among the prime reasons for the surge of interest in office relocation. But company relocation involves complex issues, demanding careful answers. A factor which many companies are probably not aware of is that for an office to relocate 200 staff from London, under prevailing conditions, the break-even point is six years into the future, according to estimates at the Centre for Urban Research and development at Newcastle University.

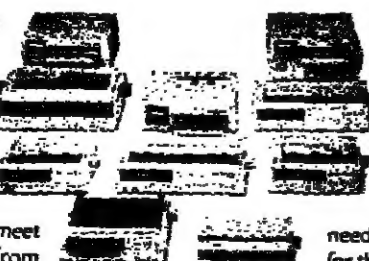


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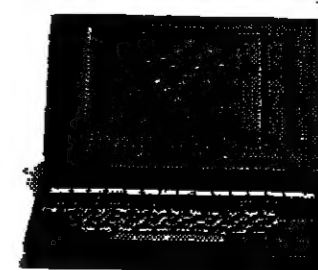


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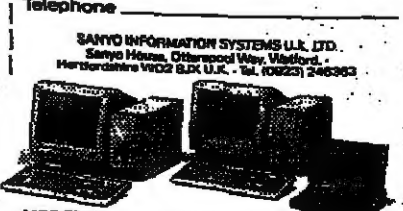
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